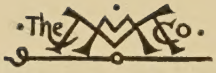
Digitized by the Internet Archive
in 2026

https://archive.org/details/peterramuseducat0000fran

PETER RAMUS

AND THE

EDUCATIONAL REFORMATION OF THE SIXTEENTH CENTURY



THE MACMILLAN COMPANY
NEW YORK · BOSTON · CHICAGO
DALLAS · SAN FRANCISCO

MACMILLAN & CO., LIMITED
LONDON · BOMBAY · CALCUTTA
MELBOURNE

THE MACMILLAN CO. OF CANADA, LTD.
TORONTO

PETRUS RAMUS MATH. PRO REG.
Nascitur
An. 1515
Trucidatus 26 aug.
Anno. 1572.
Rame tuis Gallis es, quod Latio fuit olim
Romanj princeps Tullius eloquij.

WALTHER KÖHLER BIBLIOTHEK

PETER RAMUS

AND THE

EDUCATIONAL REFORMATION

OF THE

SIXTEENTH CENTURY

BY

FRANK PIERREPONT GRAVES

(PH.D., COLUMBIA)

PROFESSOR OF THE HISTORY OF EDUCATION
IN THE OHIO STATE UNIVERSITY

New York
THE MACMILLAN COMPANY
1912

All rights reserved

215413

COPYRIGHT, 1912,
BY THE MACMILLAN COMPANY.

Set up and electrotyped. Published September, 1912.

194
R184Y
G776p

TO

PAUL MONROE

WHO HAS GIVEN TO THE HISTORY OF EDUCATION

ITS PRESENT HIGH STATUS

IN AMERICA

PREFACE

It is difficult to understand why Ramus has been so much neglected by writers upon the sixteenth century. He was probably the foremost French philosopher of his century, and he stands well among the great educators, effective orators, and lofty characters of the world's history. In many respects he seems a striking forerunner of modern times. Alcuin, Abelard, Petrarch, Valla, Erasmus, Luther, Ramus, and Descartes are milestones that mark the pathway of progress from medievalism. Yet in few general histories do the life and work of this remarkable reformer figure in any detail. In treatises written in English he is barely mentioned, and while there have been for half a century some extended accounts of his career by French writers, and of late German scholars have been making careful contributions to elucidate the various phases of his work, there scarcely exists anywhere a complete account of his achievements that includes an analysis of his works.

Yet many pages are devoted in histories of education to such contemporaries of Ramus in France as Rabelais and Montaigne. While these men were of great importance in the development of literature and educational theory, they seem to have had comparatively little effect upon the schools or the movements of the times. Ramus, on the other hand, was a practical reformer, a writer of textbooks, the founder of a new and influential point of view in subject matter and method, a popular and successful teacher, and an active correspondent and personal acquaintance of the educational leaders of his day in all countries. No man more fully embodies the spirit of this age of reconstruction, the storm and stress period of the sixteenth century. Aside from the account of his own contributions to education and theology, the life and work of Ramus are well worth studying for the light they shed upon such a critical epoch in history.

In presenting this account of Ramus, I wish to tender my thanks to Professor Frederic Ernest Farrington, who first called my attention to the importance of the subject, to Professor Paul Monroe, who has critically reviewed the whole work, and to Professor David E. Smith, who furnished me with written suggestions concerning my treat-

ment of Ramus as a mathematician. I am also indebted to Miss Betty Joffè, and to my wife, Helen Wadsworth Graves, for several changes in the manuscript and assistance in carrying the book through press.

The engraved likeness of Ramus, which forms the frontispiece of this book, I also owe to Professor Farrington, who sought it out for me, and to the distinguished M. Chatelain, *Conservateur de la Bibliothèque de la Sorbonne*, who photographed the picture for me from the *Bibliothèque de Boissard* and developed the plate with his own hands.

F. P. G.

August, 1912.

CONTENTS

CHAPTER		PAGE
I.	The Times of Ramus	1
II.	The Breach with Aristotle	19
III.	Professor in the Royal College	48
IV.	Conversion, Persecution, and Death	71
V.	General Principles and the Organization of Education	108
VI.	The Content and Method of the Trivium	120
VII.	Content and Method of the Quadrivium	160
VIII.	Higher and Professional Studies	173
IX.	Value, Spread, and Influence of Ramism	204
	Sources, Primary and Secondary	219

PETER RAMUS

CHAPTER I

The Times of Ramus

Before undertaking a sketch of the life and achievements of Ramus, it will be well to gain some notion of his social and political setting. To understand the work of this leader, we must make a rapid survey of the forces that were struggling for supremacy during the sixteenth century in northern Europe, especially in France. This period, in the first place, witnessed the development of the Renaissance and of humanism in the countries of the north. Here the Greek and Latin literature came to enrich the medieval ideals and the course in the seven liberal arts. While the preceding century had been marked by the growth of the movement in Italy, this vitalizing development of the Italian peninsula was now senescent and was degenerating into a mere 'Ciceronian' formalism. The introduction of printing, however, had given the movement a wider field of action,

and the renewed spirit of independence and criticism could not be confined to a single country. The Renaissance and the classic literatures had leaped the Alps and had rapidly made their way northward. Toward the close of the fifteenth century the humanists outside of Italy became very numerous, and the movement came to its height in the northern lands during the sixteenth century.

Probably the earliest appearance of humanism beyond the peninsula was in the education furnished through the religious order of the Hieronymians. This brotherhood had been founded in Holland for the purpose of instructing the poor, in religion and the rudiments, but during the latter half of the fifteenth century the brethren added humanistic elements to their course and soon had a chain of schools extending through the Netherlands, Germany, and France.[1] Connected with this humanistic development, either as teacher or pupil, were such men as Agricola (1443–1485), Reuchlin (1455–1522), and that great leader of northern humanism, Erasmus (1467–1536). The Hieronymian schools had a pro-

[1] It is still somewhat mooted whether these Brethren of the Common Lot actually maintained schools of their own, or furnished 'colleges' or dormitories near schools already established.

found effect upon education and tended to introduce the classics into the universities and other educational institutions. But there were other schools that were even more directly the outgrowth of humanism, chief among which were the *Gymnasien* and the Jesuit 'colleges.' The *Gymnasien* were given their greatest impulse and more definite form by Sturm during the generation succeeding the foundation of his school and university at Strassburg (1538).[1] The gymnasial course of ten years,[2] which consisted largely of Latin and Greek, proved successful and spread in all directions. Just before the middle of the century the Jesuit 'colleges,' also with a purely humanistic curriculum, were started by Loyola, and sprang up rapidly throughout Europe.

The universities, though narrow, conservative, and generally reluctant to admit the classics, were likewise feeling the effects of the movement. By 1470, a professorship of Greek was established at the University of Paris, and while the new learning met

[1] The great repute of this school at Strassburg probably stamped the name *Gymnasium* upon the German language as the technical term for the great secondary schools in which the classics have ever since formed the basis of the course.

[2] For the course in full, see Barnard's *German Teachers and Educators*, pp. 196–208.

with formidable opposition, it found an influential patron in the king, Francis I (*r.* 1515–1547). He protected the humanistic scholars and educators, and, urged by Budæus (1468–1540) and other humanists, founded in 1530 the College of France, or *Collège Royal*, with its chairs of Greek and Latin, as a protest against the scholastic and dogmatic course of the university. It was in this college that Ramus, who had shown himself an ardent humanist, was eventually appointed to a professorship. Humanism also spread in the German universities. By the early part of the sixteenth century, the course at Erfurt, Leipzig, Heidelberg, and Tübingen came to include the classics, and a number of new humanistic universities, such as Wittenberg, Königsberg, and Jena, were started about the middle of the century.

Similarly profound changes were being effected in England. A revival of the classics, which had been gradually gaining strength, began in earnest at Oxford toward the end of the fifteenth century with the work of Grocyn and Linacre, and at Cambridge in the first half of the sixteenth with the lectures of Erasmus, Cheke, and Ascham. More and Wolsey also lent substantial aid to the movement

through their influence at court. Finally, by Colet's foundation of his humanistic school at St. Paul's in 1509, a successful example was set for secondary education, which resulted in the Latin 'grammar' school becoming the typical secondary organization in England.

But the character and the effects of the Renaissance and humanism in the north differed greatly from those in Italy. The people of the north were of a deeper and more serious temperament than the brilliant and mercurial Italians. With them the Renaissance led less to a desire for personal development, self-realization, and individual achievement, and took on a more social and moral color. The prime purpose of humanism in the north became the improvement of society, morally and religiously, and much less attention was paid to the physical, intellectual, and æsthetic elements in education. The classical revival here pointed the way to obtaining a new and more exalted meaning from the Scriptures. Through the revival of Greek, northern scholars sought to get away from the ecclesiastical doctrines and traditions, and turned back to the essence of Christianity by studying the New Testament in the original. This suggested a similar in-

sight into the Old Testament, and an interest in Hebrew was thereby aroused. To most people in the North a renewed study of the Bible became as important a feature of humanism as an appreciation of the classics, and the purer religious and theological conception that resulted mark the Reformation as an accompaniment of the Renaissance. In consequence, most of the humanists of the north were also religious reformers, and in Germany, the Netherlands, France, and England humanism passed over into the Reformation. Erasmus differed from Luther only in believing that education would eventually effect the desired changes. So Melanchthon is ranked as a reformer, but he was fully as much a humanist, while the great humanistic educator, Sturm, was in hearty sympathy with the Reformation. Lefèvre and others gave the first impulse to French Protestantism through a new translation of the Bible. Colet endeavored to dethrone dogma and tradition by a better interpretation of the Pauline Epistles and the pseudo-Dionysius. And it was evidently his humanistic bent and insight that caused Ramus, the educational reformer under consideration, to cast in his lot with the oppressed religious reformers.

Undoubtedly it was the support lent the cause of religious and theological reform by the awakened social and moral, as well as intellectual, attitude of humanism in the north, that enabled the series of revolts which arose against papal authority in the sixteenth century, to be more successful than were those of the Albigenses and Waldenses, Wyclif and Huss, in the preceding centuries. Luther's revolt (1517–1521) was primarily the result of his spiritual struggles and of his intellectual desire to formulate a better doctrine, but his persistence and success must be attributed to the sympathetic attitude of the times. Zwingli actually got his start (1519) by learning from Erasmus and other humanists how little basis there was in the Bible for the traditional theology and ritual. Calvin (1535) was among those who, after the work of Lefèvre, were led to reject the traditional doctrines and forms through the influence of northern humanism and the study of the Greek Testament. While the immediate cause of Henry VIII's revolt (1533) in England was personal advantage and statecraft, it was somewhat the result of the northern Renaissance, for without the aid of the independence and individualism that had been growing up in England

as the concomitant of humanism, even the king could not have successfully contested with the pope. Hence there is a close connection in the northern countries between the Renaissance and the Reformation; they are, in truth, but different phases of the same movement.

Such was the general intellectual and religious situation of the sixteenth century. The more specific political and social conditions and problems in the different countries during this period are equally important and interesting in the history of civilization. This century marked the climax of the Hapsburg power. In 1516 Charles V inherited from four grandparents, each a sovereign in his own right, dominion over Burgundy, the Netherlands, Spain and the Spanish possessions in America, portions of Italy, and the Austrian territories, and three years later he was, in keeping with precedent, elected emperor. But his imperial control was mostly nominal. As an inheritance from feudalism, Germany still consisted of two or three hundred states, differing greatly from one another in size and character, but all independent, and it was not intended that the emperor, who was elected on each occasion by a mixed commission of seven powerful

princes, should be, outside his own realm, much more than a figurehead. This condition of things accounts for the inability of the Diet of Worms (1521) and the succeeding imperial legislation to enforce its decrees against Luther, and for the eventual acceptance by the emperor of the Peace of Augsburg (1555), whereby each German state was allowed to choose for itself between the Lutheran and Catholic confessions. The next year the gouty Charles laid down the cares of government, after transferring his eastern possessions to his brother, Ferdinand, and the western to his son, Philip II. By this time the Council of Trent (1545–1546 and 1562–1563) and the rise and spread of the Jesuits were bringing the religious controversy in Europe to an acute stage, and Philip soon showed himself the most ardent supporter of the pope and the persecutor of all Protestants, especially in his Netherland dominions. Meanwhile the revolt of the English church had taken place during the reigns of Henry VIII (1533–1547) and Edward VI (1547–1553), and after a brief return to Catholicism and Protestant persecution under Mary (1553–1558), Elizabeth greatly widened the breach (1558). Before the end of the century she had assisted the Protestant

Netherlands, frustrated the attempt of Philip to land troops in Ireland, and beaten off the Spanish Armada (1588).

But of more direct importance to our understanding of the career of Ramus (1515–1572) is the situation in France itself. Here the religious controversy took the form of civil wars between the Catholics and Protestants, which lasted beyond the lifetime of our reformer. The Protestants were protected by Margaret of Navarre, sister of Francis I (*r.* 1515–1547), but the king himself was stirred up by the theologians of the University of Paris against the reformers. He consented to the burning of heretics in 1535, which led to the flight of Calvin to Basel. Here the great reformer prepared the defense of his belief in *The Institutes of Christianity* (1536). Shortly after this he was called to the spiritual and civic directorship of Geneva, which, except for a brief interval, he held until his death (1564). His successor at Geneva, Theodore Beza (1519–1605), had displayed great ability in the defense of Protestantism at the Colloquy of Poissy (1561), and both on this occasion and later was destined to play an important part in the life of Ramus. Francis I meanwhile grew more and more intolerant, and two years be-

fore his death had some three thousand Waldenses massacred. His successor, Henry II (*r.* 1547–1559), also pledged himself to exterminate the Protestants, but did not hesitate to ally himself with their co-religionists in Germany when he wished to wrest away part of the dominions of Charles V. Under the short reign of the weak sons of Henry — Francis II, Charles IX, and Henry III — there was an era of almost constant civil war. Francis II (*r.* 1559–1560) had married Mary, Queen of Scots. During his brief occupancy of the throne, the government was controlled by his wife's two powerful French uncles, Francis, Duke of Guise, and Charles, Cardinal of Lorraine, and even after the death of the young king, the Guises never surrendered their influence. The Guise cardinal is most prominent in the life of Ramus, first as his patron and protector, and, after the reformer's conversion to Calvinism (1561), as his inveterate enemy. During the reign of Charles IX (*r.* 1560–1574), his mother, Catherine de' Medici, was virtually the sovereign, and affairs were further complicated by the union of the Bourbons, or younger branch of the reigning family, with the 'Huguenots,' as the French Calvinists had come to be known. Many of the Huguenots belonged to noble families, as in

the case of the Prince of Condé, who represented a collateral branch of the Bourbons, and of Admiral Coligny, whose father had been a marshal of France and his mother a Montmorency. These leaders were generally 'Huguenots of state,' and their connection with Protestantism came to confuse politics with religion, and often proved embarrassing to such 'Huguenots of religion' as Ramus. For a time it seemed as if the Huguenot party might control the government, and the queen-mother was forced to issue the Edict of Toleration (January 17, 1562), permitting the Protestants to assemble for worship during the day in all places outside the towns.

But the Guises had no intention of allowing matters to rest. In the same year, by a brutal massacre of one thousand Huguenots, who were worshiping at Vassy, they precipitated the first of the civil wars. During the life of Ramus there were three such outbreaks (1562, 1567, and 1572), which were characterized by the utmost savagery upon both sides. In the first two conflicts Ramus and other Protestants were driven into temporary exile. In 1570 peace was declared, and the Calvinists were allowed, for their protection, to fortify certain towns, such as La Rochelle, Montauban, and Nîmes.

Coligny became a sort of privy councilor to the king and queen-mother, but the Guises soon led the queen to believe that this Huguenot leader was plotting against her, and they eventually brought about the massacre of St. Bartholomew's Day (August 23–25, 1572). In the course of this butchery Coligny was slain, Condé barely escaped by recanting, and Ramus suffered a most horrible death. After the massacre, civil war again broke out, and the Guises, with the aid of the pope and the Parlement of Paris, formed the Holy League for their own interests and the crushing of Protestantism, and nearly succeeded in winning the throne. Not until the time of Henry IV and the Edict of Nantes (1598) were the Huguenots ever free from persecution.

Throughout this series of internecine religious conflicts Ramus was principal of the College of Presles, as well as a professor in the College of France. It may, therefore, be well at this point to examine the academic foundations of Paris, in order to get the educational background of our reformer. The colleges of which the University of Paris was composed in the sixteenth century, in some instances dated back three or four hundred years. They had started as boarding-houses, with resident masters,

who conducted their students to the *Rue du Fouarre*, or street upon which the university schools were located and where the instruction was given. Among these 'colleges' was the famous one founded by Robert Sorbon [1] in 1257 for lay students in theology, and the College of Presles, established in 1322, of which Ramus was so long the head. The various colleges were intended originally for students from the same district, province, or nation, and owed their foundation to public munificence, private benefaction, or, as in the case of the Sorbonne,[1] to both these sources. Now in time it became more convenient to teach the students at home in the colleges than to take them up to the *Rue du Fouarre* for lectures, and the schools were, by the close of the fifteenth century, practically replaced by the colleges as the centers of instruction in the University of Paris. Some of these institutions afforded only secondary training in grammar, rhetoric, elementary dialectic, and the rudiments of arithmetic, but others combined with this the higher work of the 'arts' faculty of the university, which now con-

[1] From this sprang the *Sorbonne*, or College of Liberal Arts of the University of Paris. In the sixteenth century it was the stronghold of conservative theology.

sisted almost entirely of logic to the minimizing of the other liberal arts. 'Grammar' schools, or secondary schools proper, had also grown out of the cathedral schools and spread to the various parishes, so that there was some confusion between secondary and higher education.[1] It will later be seen that one of the reforms recommended by Ramus dealt with a more careful definition of these two grades of education.[2]

The way in which the College of France came to be called into being in opposition to the traditional 'arts' curriculum of the university has already been described in the account of humanism. This new college was really an association for independent thought and research. Salaries from the king's treasury were paid to a body of royal lecturers or professors, of whom Ramus became one through the influence of the Cardinal of Lorraine, and, quite contrary to the usage of the university colleges, no fees were required of the students. The new foundation was bitterly opposed by the university and the spread of humanism was fought at every turn. The

[1] Joly, *Traité historique des écoles episcopales et ecclésiastiques*, p. 304.

[2] See his *Advice on the Reformation of the University*, on pp. 78–84.

contest that arose may, therefore, be described as between the conservative forces of scholasticism, ecclesiasticism, and the masters of the university colleges, on the one hand, and the progressive alliance of humanism, Protestantism, and the royal lecturers, on the other. Thus Ramus, who through most of his career was a member of both faculties, found himself between two fires. As an avowed humanist and opponent of Aristotle from the beginning, he was, we shall see, eventually forced by the logic of the situation to declare publicly and at awful sacrifice his adhesion to Protestantism.

No doubt before that time several factors had combined to shape his point of view. His own education at the College of Navarre was of the traditional sort, with its word for word interpretation of Priscian, Donatus, and Alexander of Villedieu in grammar, and its abstractions, trivialities, and hair-splitting disputations, depending absolutely upon the authority of the medieval Aristotle. But, like most great minds, Ramus was 'the heir to all the ages.' Abelard, who moderated the crudities of scholasticism with selections from the classical poets and opposed Plato to the dialectic of Aristotle; Erasmus, the open enemy of barbarism and the old formulas that

held thought captive; and many of the other humanists, such as Valla, Vives, Agricola, and Sturm, must all be considered his spiritual forbears. In the preface to his *Studies in the Liberal Arts*, he says of the visit of Sturm to Paris in 1529:—

"Since the fair days of Greece and Rome, Rudolph Agricola is the first to recover the usage of logic and invite the youth to search the poets and orators, not only as the masters of style and eloquence, but as models of reasoning and the art of thinking. Formed at the school of Agricola, Johannes Sturm first made Paris recognize these splendid applications and excited in the university an incredible ardor for the art of which he had revealed the utility. It was in the lessons of this great master that I first learned the use of logic and then taught it to the youth in quite a different spirit from the sophists, relegating to them their furor for disputation."

But the greatest master of Ramus was Aristotle himself, whom in the medieval form he so bitterly opposed. It will be seen that his logic and spirit were based upon those of the great Stagyrite, when properly comprehended. Undoubtedly, too, Ramus owed much, as he frankly confesses, to Socrates, Plato, Galen, and the Stoics, and even to Cicero and

Quintilian, whose absolute authority he by no means admitted.[1] In his general attitude it is likely that he was indebted to Lefèvre and Jean le Masson ('Latomus'), and in certain parts of his work to Oronce Finée,[2] the mathematician, and to Etienne Dolet, Louis Meigret, Jacques Dubois, and other grammarians of his own time and land. But we shall have further opportunity to witness these influences fairly as we follow out the life and work of our reformer. We have now surveyed his intellectual, political, and social setting, and can hold him somewhat in perspective.

[1] See pp. 42 ff.

[2] See p. 59.

CHAPTER II

The Breach with Aristotle

Pierre de la Ramée,[1] later known as Petrus Ramus,[2] was born in 1515,[3] at Cust,[4] Picardy. His struggles to secure an education remind us of the early days of many a more recent scholar and educator.

[1] The chief sources for the life of Ramus are the accounts of his three disciples, — John Thomas Freigius, in a preface to his *Commentaries on Ramus's Discourse on Cicero;* Theophilus Banosius, in a preface to Ramus's *Posthumous Commentaries on the Christian Religion;* and especially Nicholas of Nancel, in his *Life of Peter Ramus.* Most of the works of Ramus himself also furnish us with a great deal of information. Waddington, Desmaze, and others have endeavored to unify these accounts.

[2] He assumed this Latinized name upon entering college. It is not an exact translation and should rather have been *Rameus* or *a Ramo.*

[3] Joly and Goujet give the date of his birth as 1502 on the basis of a note upon the poem, *Navarride,* by Palma Cayet in 1604, but this former pupil of Ramus had not been associated with him for half a century, and, to judge from the evidence of Freigius and Banosius, his memory played him false.

[4] An ancient town on the border of the department of the Oise, a short distance from Noyon, where Calvin was born. It is also spelt Cultia, Cusia, Cus, Cuz, Cuth, Cut, and in half a dozen other ways.

He was descended from a noble family, but the conquest of Charles the Bold had driven his grandfather from the estate in Burgundy and forced him to become a charcoal burner in an obscure village. The father of Ramus passed his life in labor on a small farm near the same place, and died when Peter was little more than a child. The boy early showed a marked taste for study, and soon exhausted the meager learning of the village schoolmaster. He then pushed on to Paris in pursuit of further knowledge, but was twice forced by poverty to return home. At length, however, he obtained employment as a servant[1] to a rich student at the College of Navarre,[2] and thus secured the scholastic opportunities he craved. Though but twelve years of age, young Ramus was large and strong, and undertook to attend his master by day and pursue his own studies at night. By attaching a stone to a lighted cord, he provided an automatic alarm for awakening after a few hours of sleep, and, although troubled at

[1] This was not an uncommon procedure with poor students at Paris. Cf. Mullinger, *University of Cambridge*, 346 f., for a similar situation at that institution.

[2] This institution was founded in 1304 by the queen, Jeanne de Navarre, wife of Philip the Fair, upon the height of Sainte Geneviève. See pp. 13 f.

times with his eyes, his courage was never daunted. In time he passed through the secondary curriculum, and then spent three years and a half upon the higher course of the day in dialectic. This latter period exercised a decisive influence upon his whole career He soon conceived a high esteem for dialectic, together with a disgust for the way it was being taught in the colleges, and began his attack upon Aristotle and scholasticism. What repelled him most was the barrenness of the current dialectic method for any real use in the 'arts' or in life. "When I came to Paris," he tells us,[1] "I fell into the subtleties of the sophists, and they taught me the liberal arts through questions and disputes, without ever showing me a single thing of profit or service." In his *Studies in Dialectic*[2] he gives a much more detailed and graphic picture of the whole formal and useless method of instruction then in vogue, together with the way in which a new point of view and freedom in thinking eventually came to him. He declares: —

"Never amidst the clamors of the college where I passed so many days, months, years, did I ever hear a single word about the applications of logic. I

[1] *Remonstrance au conseil privé*, p. 24.

[2] Book IV, 151.

had faith then (the scholar ought to have faith, according to Aristotle) that it was not necessary to trouble myself about what logic is and what its purpose is, but that it concerned itself solely with creating a motive for our clamors and our disputes. I therefore disputed and clamored with all my might. If I were defending in class a thesis according to the categories, I believed it my duty never to yield to my opponent, were he one hundred times right, but to seek some very subtle distinction, in order to obscure the whole issue. On the other hand, were I disputant, all my care and efforts tended not to enlighten my opponent, but to beat him by some argument, good or bad: even so had I been taught and directed. The categories of Aristotle were like a ball that we give children to play with, and that it was necessary to get back by our clamors when we had lost it. If, on the other hand, we should get it, we should not through any outcry allow it to be recovered. I was then persuaded that all dialectic reduced itself to disputing with loud and vigorous cries.

"Perhaps you will ask me when and how I finally stumbled upon a better method. I will tell you freely and candidly, in order that, if the remedy that

rescued me may be useful in your situation, you may use it liberally. I do not seek at all to convince you by argument; I only wish to explain simply and directly how I emerged from that darkness. After having devoted three years and six months to scholastic philosophy, according to the rules of our university; after having read, discussed, and meditated on the various treatises of the *Organon* (for of all the books of Aristotle those especially which treated of dialectic were read and reread during the course of three years); even after, I say, having put in all that time, reckoning up the years completely occupied by the study of the scholastic arts, I sought to learn to what end I could, as a consequence, apply the knowledge I had acquired with so much toil and fatigue. I soon perceived that all this dialectic had not rendered me more learned in history and the knowledge of antiquity, nor more skillful in eloquence, nor a better poet, nor wiser in anything. Ah, what a stupefaction, what a grief! How I did accuse my deficiencies! How I did deplore the misfortune of my destiny, the barrenness of a mind that after so much labor could not gather or even perceive the fruits of that wisdom which was alleged to be found so abundantly in the dialectic of Aristotle!

"I finally came upon a book of Galen on the thoughts of Hippocrates and Plato.[1] That parallel of Plato with Hippocrates furnished me much enjoyment, but it inspired me with a much greater desire to read all the dialogues of Plato which treated of dialectic. Then it was, to speak the truth, that I found the haven so long desired. . . . That which I especially enjoyed and even loved in Plato was the method by which Socrates refuted false opinions, attempting first of all to raise his hearers above the senses, prejudices, and traditions of men, in order to lead them to their own natural sense of right and liberty of judgment. For it appeared to him insane that a philosopher should allow himself to act according to the opinions of the masses, which for the most part are false and deceitful, rather than

[1] Ramus refers to the Περὶ τῶν Ἱπποκράτους καὶ Πλάτωνος δογμάτων. See *Galeni Opera* (Kuhn ed.), V, 181 ff. Plato believed that the nature of the mind could be discovered by a method similar to that by which Hippocrates investigated the nature of the body. Probably Ramus was little acquainted with Greek at the time, and was indebted for his knowledge to a Latin translation of Galen by Theodoric Gerard, which Sturm had published. See Guggenheim, *Beiträge zur Biographie des Ramus*, p. 141. Ramus later admitted this, as we find from the preface to his *Proëme des Mathématiques* (1567) and at the beginning of his *Scholæ in liberales artes* (1569).

apply himself to ascertaining only the facts and their true causes. In short, I began to say to myself (I should have hesitated to say it to another): 'Well, what hinders me from 'socratizing' a little, and examining, independently of the authority of Aristotle, whether that doctrine of his dialectic is the most true and useful? Perhaps that philosopher has abused us by his authority, and in that case, I need not have been surprised at having studied his books without deriving any profit from them, when they contained none. . . . And what if that whole doctrine should prove a delusion?' "

Thus Ramus gradually broke with the scholastic philosophy and the Aristotelianism of the day. But, owing to his impulsive nature and the impetuosity of youth, as well as to the immoderate and controversial temper of the times, Ramus, once convinced, pushed his opposition to an extreme, and became straightway an ardent reformer, if not a revolutionist. He attacked without discretion the great idol of the day, whose word was revered as that of an oracle and upon the basis of whose dialectic the Church had built her doctrine.[1] But his very

[1] Aristotle several times narrowly escaped being canonized in the Middle Ages. See Cousin, *Cours*, 2 série, t. II, p. 240.

vehemence attracted attention and enlisted a large number of partisans. His first opportunity for a public combat came with his master's examination in 1536,[1] when he formulated as his subject for disputation the audacious proposition: "All that Aristotle has said is false."[2] In developing his subject, he maintained in the first place that the writings attributed to Aristotle were spurious, and secondly that they contained only errors.[3] His disputants, the judges, were impaled on the horns of a dilemma, since they could not, as was their wont, appeal to the authority of Aristotle without begging the question. They were unable to make any headway against the youthful disputant. As a result, after assailing his thesis for a whole day and having their arguments refuted with great spirit, subtlety, and directness, they were at length obliged to admit the candidate to the degree with honors.

This paradox of the young scholar startled all the universities of France, and quickly spread to Germany, Switzerland, and Italy. The academic world stood aghast at his audacity. If Ramus were

[1] According to custom, this probably occurred in Lent.

[2] *Quæcumque ab Aristotele dicta essent, commentitia esse.*

[3] Freigius, *op. cit.*, pp. 9 ff.

right, all the universities of Europe were wrong. He was denounced by many scholars as an ingrate on the ground that he had used the weapons supplied by Aristotle to attack the donor himself. To this he replied in the very words of Aristotle, when that philosopher declared that he preferred the truth even to his master, Plato: "Had my own father promulgated those errors, my attack should not lack force and persistency. The truth is more precious and dear to me than my father himself, and I shall hold myself guilty to let my regard for a single person stand in the way of all." [1]

Thus when barely twenty-one, the son of a poor widow became one of the most striking figures within the realm of intellect. The attainment of his degree entitled him literally to become a 'master' in the university, and he began his labors at the College of the Mans [2] under the auspices of Jean Hennuyer. This scholar, who had been his teacher in philosophy at the College of Navarre, was probably likewise a professor at Mans,[3] and Ramus may have been substituting for him. At any rate, he

[1] *Aristotelicæ Animadversiones*, fol. 73–75.

[2] See pp. 13 f.

[3] See Du Boulay, *Hist. de l'Univ. de Paris*, t. VI, 952.

did not stay here long, but undertook to start at the little college of Ave Maria, in opposition to the Aristotelians, an education more in conformity with his own ideal. He associated with himself in this endeavor Omer Talon of Beauvais, an able professor of rhetoric, who ever afterward remained a close friend and enthusiastic supporter of his educational reforms, and Barthélemy Alexandre of Champagne, a noted Greek scholar, who could teach the Hellenic philosophers and orators in the original.

Here, for the first time in any college of the University of Paris, Greek and Latin authors were read at the same time, and the study of 'eloquence,' or classical literature, was joined with that of philosophy, and of the poets with the orators. His plan for enlarging the breadth and culture of higher instruction proved interesting, stimulating, and almost dramatic. The students flocked to hear Ramus, whose reputation as an orator was established the first day. This remarkable success he followed up by planning to reform the work of the university in general and the arts faculty in particular. He put in several years forgetting much of what he had learned at the College of Navarre and in reconstructing all the liberal arts. He especially en-

deavored to continue his reform in dialectic, and foresaw in the application of this subject to the other liberal arts the keystone to the entire arch, and at that point he centered the structure opposed to Aristotle and the medieval philosophy founded upon him. In this progressive step toward real humanistic study and fruitful logic he probably had as guides such writings as the *Sapiens* (1522) and *De Disciplinis* (1531) of Vives,[1] which must have been well known to him, and the lectures on dialectic of Sturm,[1] who had just completed his seven years of teaching at Paris. The masters in the College of Ave Maria, then, made their lectures attractive and practical by seeking illustrations and models of the operations of the mind in the classical poets and orators, thus verifying in an interesting way the rules of logic and banishing the barren disputes that had long held sway at the university. "As the result of a happy thought," says Ramus,[2] "I put forth the proposition that the masters of the university were grievously in error to suppose that the liberal arts were well taught in making of them mere interrogations and syllogisms, and that the whole of this sophistry should be cast aside and the

[1] See p. 17.

[2] *Remonstrance au conseil privé*, p. 25.

subjects should rather explain and suggest real usage."

To crystallize this position, Ramus in 1543 published in Latin two epoch-making books on logic, the *Divisions* or *Institutions of Dialectic*[1] and the *Animadversions on Aristotle*.[2] In the former work he stated dogmatically a number of elementary principles of logic in terse and elegant language. This treatise, however, had in it little that was controversial, with the exception of the brief introduction, but the latter work consisted in a fierce onslaught upon Aristotle, filled with the bitter invective that was characteristic of the age and his own impulsiveness. It was most unfair and indiscreet in its critical analysis of the great logician, representing him as a 'sophist,' an 'impostor,' and a 'sacrilegious man,' and his disciples as 'barbarians,' whose disputes were barren and noisy. He ridiculed and condemned with great force and eloquence their subtleties and follies of all sorts. He boldly declared himself the opponent of a routine, and the apostle of freedom of thought, and he held himself ready to encounter all labors and dangers,

[1] *Dialecticæ partitiones ad Academiam Parisiensem* (in later editions called *Dialecticæ institutiones*).

[2] *Aristotelicæ animadversiones.*

in order to destroy the sophistry of his opponents, even to the extent of laying down his life for the cause.[1] Finally, he reiterated the famous paradox of his master's disputation with scarcely any moderation,[2] and discharged a fusillade of abuse at the effete teachings of the professors in the faculty of arts.

So determined an attack upon the Aristotelian citadel could no longer be passed over unnoticed, and the Peripatetics massed themselves for battle. Ramus, too, seems to have understood fully what the consequences of his treatises were likely to be. He undertook to intrench himself behind the good will of the king, Francis I, to whom he presented a handsome copy of the *Divisions of Dialectic*, together with a eulogy of his reign and wishes for his prosperity.[3] With a similar motive he dedicated the *Animadversions* to two former college mates, both afterwards cardinals, Charles of Lorraine and Charles of Bourbon, and appealed to their kindness of heart,

[1] See *Animadversiones*, fol. 15 v.

[2] His later works on the subject, notably the *Scholæ dialecticæ*, were much less extreme and vehement, and were directed rather against the scholastic interpretation of Aristotle than the master himself.

[3] Waddington (*Ramus*, p. 37) says this volume is in the *Bibliothèque Impériale* (now *Nationale*), No. 6659, of the Latin manuscripts, and quotes from the dedication (pp. 421 ff.).

which he declared had often been experienced by himself and had been much praised by their revered master, Hennuyer. While these precautions were well taken, they were not sufficient to withstand the storm that immediately arose and broke over the head of Ramus. The conservative masters of the university, perceiving the sympathy of the students for the vigorous reformer, and fearing a revolution, were alarmed and enraged. The rector of the university, Pierre Galland, principal of the College of Boncour, especially felt himself aggrieved, and, while taking no overt step, secretly urged two well-known masters to expose the fallacies of Ramus. These men were Périon, a professor of theology, who had made a pretentious and inaccurate translation of Aristotle, and Govéa, a conservative, but rather learned and witty jurist. The arraignments of Ramus, which they were only too eager to make, were filled with pedantry and invective, and intimated that dire calamities were in store for the reformer, should he not repent and 'make his peace with honest folk.'[1] Their defense of Aristotle had more force than point, and the writings of that

[1] As sources, see (1) *Perionii pro Aristotele in Petrum Ramum orationes II* and (2) *Hispaniæ bibliotheca*, t. II, class. VII, pp. 300 f.

philosopher, with their austere dignity, would have proved by themselves a more weighty answer than these violent and unjust anathemas of his disciples.

Galland, however, was succeeded the following year[1] by Guillaume de Montuelle, principal of the College of Beauvais, who acted with more directness in the matter. He at once presented the two offending works to the faculty of theology for censure, and when this had been passed, he had the university ask the civic authorities to suppress the books. Ramus was summoned before the provost of Paris as an enemy to religion and the public peace and a corrupter of youth, and at the request of Govéa, who acted as the university's advocate, the case was brought before the Parlement[2] of Paris. Then, since the procedure of this tribunal appeared too deliberate and regular to satisfy the anger of the Aristotelians, Galland got Pierre du Chastel,

[1] The term of the rector's office was but one year.

[2] The functions of this body are not to be confused with those of a *parliament*. The local *parlements*, of which that of Paris was the most important, were primarily higher law courts, but, in addition to trying cases, they claimed the right to register or disapprove the decrees of the king, and maintain certain other legislative powers.

bishop of Mâcon and a close friend of the king, to intervene and bring the complaint to the royal notice at once. Francis, finding the growing tempest and uproar unendurable and wishing it to subside as quickly as possible, referred the case, at Du Chastel's suggestion, to a commission of five, two of whom were to be chosen by each side and a fifth by the king. Ramus succeeded in getting two talented personal friends to act for him, but, although their arguments completely vanquished the other three judges, who were zealous Aristotelians, they were overborne and withdrew from the farcical trial in disgust. Sentence was then pronounced upon the defendant as follows: —

"Our most Christian king, in his love for philosophy and liberal studies, has committed to us the task of examining the book which P. Ramus has published against Aristotle under the title of *Animadversions* on Aristotle and of passing judgment upon it. We have read the book carefully and have examined and weighed every one of its propositions and have come to this decision: *Ramus has acted rashly, arrogantly, and impudently*, in undertaking to condemn and impugn the art of logic, which has been accepted among all nations; and which he

himself does not understand at all. Moreover, the reproaches which he heaps upon Aristotle are of such a kind as to exhibit his ignorance and stupidity, as well as his wickedness and bad faith, since he reprehends many of the truest doctrines, and attributes much to Aristotle that this philosopher has never held. In short, his book contains nothing but fictions and scurrilous slanders. Wherefore, we have judged that it is to the best interest of the republic of letters that this book be suppressed by all possible means, and that his other book, *Institutions*[1] *of Dialectic*, which also contains many statements that are untrue and falsely attributed, shall be treated likewise." [2]

Thus not only was the *Animadversions* not granted a fair trial, but even the more constructive work of Ramus was condemned without even being examined, solely because it was by the same author. The king, who boasted of his title of 'father of letters,' was swayed by the clamors and confirmed the unjust decision and did everything possible to make it effective. In his decree, after giving a lengthy

[1] See footnote on p. 30.

[2] The original text is given in Du Boulay, *Hist. de l'Univ. de Paris*, t. VI, p. 394.

account of the trouble that had disturbed his 'dear and beloved daughter, the University of Paris,'[1] and of the trial that had ensued, he declares: —

"*Be it known* that we have condemned, suppressed, and abolished the said books, and made prohibitions and warnings to all printers and booksellers of our kingdom, fiefs, domains, and seigniories, and to all our other subjects of whatever estate and condition, that they neither print, spread abroad, sell, or utter the said books, in our kingdom, fiefs, and seigniories, under pain of confiscation of their books or of corporal punishment. And likewise to the said Ramus that he neither lecture upon said books nor have them written or copied or spread abroad in any manner, and that he do not lecture on dialectic or philosophy of any sort whatsoever, without our express permission, and also he no longer use such slanders and invectives against Aristotle or other ancient authors received and approved, or against our said daughter, the university, under the penalties above mentioned. *So we commend* and decree to our provost of Paris,

[1] *La fille ainée du roi de France*, 'the eldest daughter of the king of France,' was the name given in 1515 by Francis I to the University of Paris and generally used after that. See Pasquier, *Recherches de la France*, p. 811.

that he may cause the present ordinance and judgment to be executed."[1]

The edict of the king was registered by the parlement without opposition, and was published by trumpet and posted in French and Latin in all parts of the city. It was dispatched throughout France, and sent to foreign towns and universities to vindicate the orthodoxy of Paris. It was received by the conservatives of the university with transports of joy. The obnoxious books were burnt in front of the College of Cambrai by one of the biased judges, and the Peripatetics indulged in a greater celebration than would ordinarily be held after a military victory.[2] Some of his opponents, however, regretted that the king had let Ramus off with so light a penalty, and insisted that he should have been exiled or sent to the galleys as a common malefactor.[3] Ramus, however, could do nothing except submit to these indig-

[1] Given in full in Du Boulay, *op. cit.*, t.VI, p. 657; Charpentier, *Ad expositionem disputationis de methodo Responsio;* and La Choix du Maine, *Bibliothèques Françoises* under *Pierre de la Ramée;* Niceron, *Mémoires*, XIII.

[2] This was the testimony given by Génébrard in his eulogy at the funeral of Danes, the judge who burnt the book of Ramus. See *Vie, Eloges, et Opuscules de Pierre Danes.* (Paris, 1871, p. 90.)

[3] See Charpentier, *Animadversiones in Dialecticarum Institutiones P. Rami*, fol. 13 r.

nities and conceal his resentment as much as possible. Later he declared with his characteristic philosophy: —

"I had undertaken to make known the principles of Socrates, and found that I had drawn upon myself the same sort of calamity as that which overwhelmed him. For a complete resemblance my case lacked only the hemlock." [1]

Nevertheless, Ramus seems not to have been altogether silenced. It was only philosophy that he was forbidden to teach, and in the very year of his conviction (1544) we find him at work as usual with Talon and Alexandre at their college.[2] While he could not deal with logic or any part of philosophy, and confined himself entirely to the classics and mathematics,[3] he still defended the union of literary studies with philosophy. Moreover, Talon was not in the least intimidated, and publicly announced

[1] *Scholæ mathematicæ*, l. III, p. 74.

[2] There are still preserved the addresses of the three colleagues to their students in November, — *Tres orationes a tribus liberalium disciplinarum professoribus, Petro Ramo, Audomaro Talæo, Bartholomæo Alexandro, Lutetiæ in gymnasio Mariano habitæ.*

[3] During this period he made his first Latin translation of Euclid, which he anonymously dedicated to his patron, the Cardinal of Lorraine. More will be heard of his mathematical publications later on.

his complete agreement with the position taken by Ramus and his intention to rescue philosophy from the darkness in which it was groping. He praised the *Animadversions* most heartily and announced that he would produce a similar work on rhetoric.[1]

The next year an even more favorable opportunity presented itself to the two reformers. Ramus was invited by Lesage, the aged principal of the College of Presles, to take charge of this historic school.[2] The college was badly run down in finances and attendance, but, through the eloquence and improved management of Ramus, it shortly became one of the best.[3] Here, with the assistance of Talon, who soon followed him to Presles, Ramus continued to introduce the same reforms and even to push them further. He had the temerity to announce as the subject of his first lectures that passage of *The Republic* of Cicero that treats of Platonic philosophy, and, in spite of the ban upon his lecturing upon the subject, he commented without reserve, on the ground of teaching the classics or 'eloquence,' upon the

[1] *Collectan. præfat., epist.* (1577), pp. 19 ff.

[2] It was founded in 1314 by Raoul de Presles, a secretary of Philip the Fair, according to Waddington. Farrington, from Jourdain and Chauvin, estimates 1322 as the date.

[3] See Nicholas of Nancel, *Rami vita*, p. 19.

Dream of Scipio.[1] Moreover, the two friends again taught the Latin and Greek authors in the same class, and joined the study of 'eloquence' with that of philosophy. While not nominally permitted to teach philosophy himself, Ramus still insisted upon the need of the union of the two lines of study, and in October, 1546, delivered his oration upon the subject.[2] To carry out this idea and yet live within the interdict, it was arranged that Talon should give a course on philosophy in the morning, while Ramus lectured in the afternoon upon rhetoric, illustrating through the poets, orators, and other authors the usage and application of the principles of logic. This double system of lectures was in itself a startling innovation, but Ramus undertook to show that it was in keeping with the intention and example of Aristotle and with the practice at the College of France,[3] and expressed the hope that the plan might become general in the university colleges also.

Such vitality and attractiveness in instruction not only seemed destructive of the 'arts' traditions, but soon lured students in large numbers away from all

[1] His *Somnium Scipionis ex libro sexto Ciceronis de Republica Petri Rami prælectionibus explicatum* was published in 1546.

[2] *Oratio de studiis philosophiæ et eloquentiæ conjugendis.*

[3] See pp. 4 and 15 f.

the other colleges. This was a constant source of grievance to the conservatives, and, failing in their attempt to make trouble between Ramus and the retired principal, Lesage,[1] they constantly complained officially of this 'subversion of the College of Presles.'[2] On several occasions the rectors felt called upon to investigate, and once Ramus was haled before the parlement by Galland for this revolutionary offense, but through the influence of his patron, Charles of Lorraine, he was acquitted.[3] Moreover, by the fortunate circumstance of the succession of Henry II to the throne in 1547, the power of this cardinal protector, who had been the preceptor of the new monarch, was greatly increased, and almost his first act was to procure from the king an abrogation of the edict against Ramus. The ecclesiastical favorite showed the king the necessity to philosophy of freedom in thinking and of the right to adopt or reject without limitation the opinions of Plato, Aristotle, or any other thinker. The king promptly

[1] Banosius, pp. 9 f.; Nancel, p. 18. The accusation of having forced out the old principal was repeated a decade later by his worst enemy, Charpentier (*Animadversiones adversus P. Ramum*, 1555, fol. 4 v., *et alibi*).

[2] See Du Boulay, *op. cit.*, t. VI, p. 399. Ramus was repeatedly denominated *turbator collegii Prællei.*

[3] Ramus, *Pro phil. disciplina* (in *Collectan. præfat.*, p. 310).

canceled the interdict and the parlement registered his decision. Thus, says Ramus, "the true God who knows to what end he has produced his creatures, reserved the conclusion of my case for the good King Henry, who having heard the controversy recounted, unbound my tongue and hands, and gave me the right and power to pursue my studies." [1]

This gave Ramus a latitude in pursuing his studies and literary work that he was not slow to utilize. In the *Academy* (*i.e.* University) of Talon he had the story of his persecutions narrated, and through the offices of the same friend there were published new editions of the two condemned books with many modifications and additions. Ramus himself within a few years collected his commentaries on the letters of Plato and on the orations and rhetorical works of Cicero and Quintilian in eight or ten publications,[2] dedicating most of them to his powerful patron, the

[1] See *Remonstrance au conseil privé* (1567), p. 25.

[2] *Brutinæ quæstiones in Oratorem Ciceronis*, 1547 and 1549; *Rhetoriæ distinctiones* (*in Quintilianum*), 1549; *Platonis epistolæ a Petro Ramo latinæ factæ, et dialecticis rerum summis breviter expositæ*, 1549; *M. T. Ciceronis de fato liber*, 1550; *M. T. Ciceronis epistola nona ad P. Lentulum dialecticis rerum summis breviter illustrata*, 1550; *M. T. Ciceronis pro Caio Rubirio perduellionis reo oratio*, 1551; *Prælectiones in librum I Ciceronis de legibus*, 1552; *M. T. Ciceronis de lege agraria*, 1552.

cardinal. In these writings Ramus called for a more humanistic and methodical treatment of rhetoric, and even ventured to criticize Cicero and Quintilian. This insurgency precipitated new attacks by the conservatives. His old opponent Périon, who had attacked the *Animadversions*, now took up the cudgels as vigorously in defense of Cicero. In the dedication of his work to Du Chastel, who had brought the former case before the king, he virtuously declares: "You know that I defended Aristotle against Ramus four years ago in a lengthy speech and I now believe that I cannot give up Cicero, the father of Roman eloquence, to him without a defense."[1] And addressing the professors of all faculties, he recalls his former predictions and the threat of Ramus to reform all the arts, and "not to stop until logic has been entirely delivered from the darkness of Aristotle and it has been shown how it ought to be applied to all sciences."[2] Périon, therefore, appeals in alarm to his fellow-masters against "Ramus, who is preparing to reject Hippocrates and Galen, Euclid and Archimedes, and to declare that you are ignorant of medicine, geometry, and

[1] *Pro Ciceronis Oratore contra Petrum Ramum oratio.*

[2] Preface to the *Platonis epistolæ latinæ factæ.*

astronomy," and beseeches all "who cherish Cicero as the father of eloquence to resist Ramus, who repudiates skill and judgment."[1] This absurd outburst he followed by reprinting his former speeches in defense of Aristotle against the *Animadversions*.[2]

But this excited response was tame in comparison with the invective that was heaped upon Ramus because of his criticism of Quintilian. Galland, who had stirred up much of the fury over the *Animadversions*, was quite as indignant at the attack of a professor of rhetoric upon Quintilian as at a logician for a criticism of Aristotle. In the dedication of his edition of Quintilian[3] to Du Chastel, he assails Ramus as 'the corrupter of youth' and as a man guilty of nearly all the vices and crimes in the calendar. While Ramus followed his custom of not replying to these anathemas, the whole discussion seems to have reached such absurd proportions as to amuse many outside the university circle, and to be of enough moment to attract the humor of the satirist, Rabelais, and the poet, Du Bellay. Much fun is poked at this *Petromachy* or 'war of the Peters,' and various changes are rung on the easy puns upon

[1] Périon, *Pro Ciceronis Oratore*, fol. 3.

[2] See pp. 32 f.

[3] Paris, 1549.

Peter ('rock'), *Ramus* ('branch'), and *Galland* ('gallant').[1]

In fact, this whole 'tempest in a teapot' might have subsided through ridicule, had it not been for the entry of a new and more vigorous champion into the lists against Ramus. This was Jacques Charpentier or 'Carpentarius,' a professor in the College of Boncour and a former pupil of Galland, who remained until death the vicious and implacable enemy of Ramus. He came of a rich and well-known family with many powerful patrons, especially among the clergy, and he had at the age of twenty-five manipulated himself into the rectorship of the university. Thinking to signalize his induction into office by a popular stroke, and urged perhaps by Galland, he began by bringing, in the name of the University, trumped-up charges against Ramus and accusing him of violations of the rules. He declared in particular that the professors of the College of Presles, contrary to university statute, expounded the poets and orators, instead of confining themselves to philosophy. Then, without any investigation of the teaching or any defense from Ramus, in a packed meeting of his cabi-

[1] Rabelais, *Pantagruel*, l. IV, Prologue; Du Bellay, *Satyre de Maistre Pierre Cuignet sur la Petromachie de l'Université de Paris;* etc.

net, he had the students of that college debarred from the degrees and privileges of the university. A sharp controversy followed, in which Carpentarius accused Ramus of treason to the university.[1] And the latter was convicted by a biased commission of six selected from the higher faculties. An appeal was had to the parlement, and once more Ramus was given his rights through the influence of the Cardinal of Lorraine. The usual slow procedure was somewhat expedited, and the vigorous defense made by Ramus for academic freedom in interpreting Aristotle and other authors and his protest against the tyrannical rules and abuses of the university won him from fair-minded judges a favorable verdict. Although the University custom was sustained by requiring the reformer to explain the regular authors in the way prescribed by the statutes, he was permitted upon holidays, feast days, Sundays, and such hours as were left open by the rules, to teach whatever authors he chose and as freely as he liked. This amounted to giving him nearly two thirds of the year to interpret as he wished.

[1] The response of Ramus to this charge is embodied in his *Pro philosophica Parisiensis academiæ disciplina oratio*, which he delivered in 1551.

But to prevent any recurrence of this chicanery and persecution, the cardinal now persuaded the king to establish a new chair of Eloquence and Philosophy at the College of France, and appoint Ramus to the position. This step was taken, and, while as principal of the College of Presles, Ramus was still amenable to the University, as lecturer at the Royal College he became dependent only upon the king. He was thus afforded an unwonted freedom to develop his reforms, and the hostility and envy of the Aristotelians and conservatives was for a brief space estopped.

CHAPTER III

Professor in the Royal College

Ramus began his new duties in the fall of 1551. Although only thirty-six, his fame was widespread. The virulence of his enemies and the stubborn opposition of the conservatives, quite as much as his own brilliance and the worth of his reforms, had centered the attention of the intellectual world upon him. His opening address at the College of France was attended by many masters of the university, members of the parlement, higher clergy, and persons in all classes to the number of two thousand.[1] The importance of the occasion as a crisis in his career and the eloquence of the orator will perhaps justify quoting this inaugural speech[2] at some length: —

"There are two things, my hearers, which at the

[1] Banosius, p. 10; Nancel, p. 20; Zwinger, *Theatrum humanæ vitæ*, p. 3697, col. b.

[2] This inaugural address (*Oratio initio suæ professionis habita*) was published the same year and is still extant.

beginning of my professorship every one will expect from me; in the first place, that I express my thanks to those through whom I have been chosen for this position; in the second place, that I explain to you the reason for my appointment to the office. On the 6th of August, when Charles, Cardinal of Lorraine, brought the case of my teaching to the notice of King Henry, it pleased the king that I should be among the number and body of the royal professors, and that, as I have done from the beginning, I should teach 'eloquence' at the same time with philosophy, and he announced that decision to me in an epistle couched in terms of special honor. Wherefore, I am exceedingly grateful to Henry of Valois, most Christian of kings, and shall be as long as life endures. For, my hearers, if a father with helpless children should find silver, gold, and great and precious wealth that had been left by his ancestors, and yet could not on account of the rocks and the roughness of the ground either carry it home or share it with his children; and at length some Hercules, having pitied the wretched fortune of the father, should rid the place of rocks and roughness, and should make it quite possible for him to take it away, share, and enjoy it, would not that happy

father exult with exceeding great joy? What thanks he would give to that Hercules!

"But I was just such a wretched father for years. Many pupils had been committed to my care and affection, and the great and precious wealth of 'eloquence' and philosophy I saw had been left as an inheritance in the works of the ancient orators, poets, and philosophers, but overlooked through the carelessness of the heirs. And when I desired to collect it rationally and systematically, to use it suitably in life, and share it with my pupils, incredibly harsh conditions hindered and opposed my efforts. Nay, even my hands were fettered, lest I should take it, and my lips were sealed, lest I tell some one of it, and I was forbidden to disclose anything by speech or writing. Meanwhile, King Henry, a Gallic Hercules, as it were, came to aid me in my distress, and, four years ago, at the request of Charles, Cardinal of Lorraine, unloosed my hands and tongue, and gave me the power of teaching, practicing, and illustrating 'eloquence' and philosophy. And within the last few days, when he perceived that the old burdens were being renewed and made heavier, he even more bountifully and magnificently revealed his kindness and decreed that my labors should be not only

unfettered, but even honored with a royal stipend. Wherefore, O Henry, most Christian king, should I say that I owe the life within this body to thee, who dost free, support, and honor me, I should put it mildly. I owe to thee that which is far dearer than my body and life, — my soul, whose labors and vigils are nourished and live through thy benefits, and, I hope, will be nourished and live to herald thy praise to future ages. . . .

" The second place for thanks, my hearers, is due to Charles, Cardinal of Lorraine, who, as soon as he knew my straits, offered to become my patron and protector, — a real Mæcenas in his love of letters and in his zeal and aid in relieving virtue. Nor was he attracted by my meager ability so much as induced by the remarkable excellence of his own nature and training. I declare the truth, without fear of contradiction, — since the memory of very many still living and present will bear witness and give credence to my speech, — when I say that Charles of Lorraine from early years was so greatly devoted to learning and virtue that all of us who knew him admired the eager mind of the youth. His attention in listening to the master, his meditation and study of what had been taught, his pains in imitat-

ing the example of the author expounded, and his efforts in practicing every variety of speaking and writing were of the very highest. Only recently I have read an elegy of most brilliant language and thought written by him in the midst of an exceedingly busy life; so sound is the fruit of his well-rooted learning. . . .

"In my most bitter hours, as I have before intimated, when I was surrounded on all sides by every sort of annoyance, Charles of Lorraine was my sole comforter. It is he that has taught King Henry at all times to be liberal in philosophy toward every one. Therefore, attribute to Charles of Lorraine the credit for my being freed and restored by King Henry, and for the four years that I have pursued my studies in peace. As the latest favor, this last winter, when I was indicted and called into court, because I joined 'eloquence' with philosophy (in my teaching), how great was his kindness and equity in perceiving and expediting the whole affair! He heard first that a most serious charge had been made. Some one declared that I was an Academic, an enemy to God and humanity, flouting all laws, human and divine, and even teaching my pupils to scorn them, that I expounded misleading passages of St. Augustine in

the interest of unbridled and impious license, and that, in order to abuse unguarded minds more easily, I wished to eliminate all logical disputations (from the curriculum of my college).

"When the cardinal told me at dinner of this and bade me answer, — 'Alas!' I cried, 'my Mæcenas, what do I hear? Out of what occurrences in my entire life could any one fabricate so false a suspicion and base a slander? For I subscribe to, know, and approve of no curriculum, save that which is consistent and harmonious with the true and useful precepts of grammar, rhetoric, and philosophy, our state, and the Christian religion. Quite contrary to this absurd piece of mendacity, I maintain the principles of the true and useful arts, illustrate them with examples, and exercise and practice them daily. So far am I from scorning them or teaching others to do so! My books, inscribed with familiar examples from the poets, orators, and philosophers, I have shown thee. Nor have I cited misleading passages from Augustine, and, I believe, there is no college in the entire university in which logical disputations are more diligently pursued than in mine. Wherefore, my Mæcenas, in the name of the living God, most just and holy, exert thy valor and

vindicate my innocence of this foul and horrid charge. Such are the accusations under which I am condemned, unless thou bearest me aid!'

"Thereupon, my hearers, I witnessed the indignation of this most noble and virtuous cardinal violently aroused by such an atrocity. On the next day, then, he demanded of the president of the parlement that my case be at once brought to trial. . . . They who were present can remember with what true and weighty words the cardinal assailed my accusers. With equal firmness the next day the judge sat in the court for almost three continuous hours and . . . heard the case. At the close he and the parlement decided unanimously that my students should be completely restored to their former privileges, that lectures on philosophy should be given at the regular hours on the days ordinarily set for university sessions, and that in the remaining hours of the regular days I might lecture upon the poets, orators, and other classic authors, instead of upon philosophy. And it was just this union of 'eloquence' and philosophy for which I had been so long contending! . . .

"Therefore, my Mæcenas, by gaining this most righteous verdict, thou hast obtained leisure and

peace for my studies, and sincerity and truth for philosophy. . . . And when the university of Paris shall come to realize how vast and infinite a benefit thou hast bestowed, she will hail thee as *her* Mæcenas, and not mine alone. She will compare thee not only to the great cardinals of the ages, but will judge that Charles the Great (Charlemagne), her founder, has miraculously returned in the guise of Charles of Lorraine to mold and complete the crude and inchoate beginnings of his ancient university. Since such is the case, my hearers, in my own name and that of the state, I render most hearty thanks to Charles of Lorraine."

In an equally poetic way he followed the account of his vindication with a general exposition of his ethical and educational ideas. At the close of the oration he was met with deafening plaudits from the assembly, in which were seated many of his adversaries. This brilliant inauguration was the forerunner of a most remarkable career. The utterances of Ramus were no longer confined to the students of a single college, but resounded throughout Paris, and an innumerable body of students not only from all parts of France, but from many other countries of Europe, flocked to hear him. He realized that the

friends who had stood by him had formed high expectations of his achievements, and never allowed his work to fall below the best of which he was capable. Instead of the ordinary routine method of droning through a commentary upon a given passage, he made a treatment of the author that was at once free and interesting, and gave illustrations and applications that greatly added to the value of his exposition. The material of his lectures on the classics he soon began to publish, and rapidly put out a number of commentaries relating to the works of Cicero, Vergil, and Cæsar.[1] His interest in philosophy and logic, however, did not flag, and he took advantage of the new liberty given him to show in his lectures on the poets and orators the way in which the principles of logic obtained in any work of the intellect. Hence he revived his old method of joining the study of 'eloquence' with that of philosophy. Similarly, whenever he explained any classical author, he endeavored

[1] *M. Tulii Ciceronis de lege agraria contra P. Servilium Rullum tribunum plebis orationes tres* (1552), *M. T. Ciceronis in L. Catilinam orationes IIII* (1553), *P. Virgilii Maronis Bucolica* (1555), *P. Virgilii Maronis Georgica* (1556), *M. T. Ciceronis de optimo genere oratorum præfatio* (1556), *Ciceronianus* (1557), *M. T. Ciceronis familiarium epistolarum libri XVI* (1557), *Liber de moribus veterum Gallorum* (1559), *Liber de Cæsaris Militia* (1559).

to see what art or science he could teach through this medium. Thus the orations and the treatise *On Fate* of Cicero served as texts on rhetoric and dialectic, the Georgics of Vergil were used as a means of teaching 'physics' or natural science, and the *Dream of Scipio* in Cicero's *Republic* for treating astronomy. He felt that he might thus advance the study of the liberal arts and make them more useful. This practical tendency of his teaching caused his opponents to give him the nickname of *usuarius*, or 'utilitarian.' [1]

In fact, Ramus planned nothing short of a reform of all the liberal arts, and during this period wrote most of his works upon each of the disciplines in the *trivium*. In grammar he published his lectures on Priscian and other grammarians under the title of *Studies in Grammar*.[2] This was not merely a critical treatise, but undertook to establish constructive principles. About the same time he put out works upon Latin grammar,[3] and in the succeeding

[1] See *Turnebi disputatio ad librum Ciceronis De Fato* (1556), fol. 220. If 'pragmatist' were not so modern, it would render this word most aptly.

[2] *Scholæ Grammaticæ* (1559).

[3] *Grammaticæ libri quattuor* (1559) and *Rudimenta grammaticæ* (1559).

years he wrote treatises upon Greek grammar,[1] and even a work on the vernacular,[2] which ran through many editions. On rhetoric Ramus also produced reform works. The critical treatises on Cicero and Quintilian, which had led to such an uproar,[3] he now modified and united under the less aggressive title of *Studies in Rhetoric*.[4] The more constructive, if no less difficult, task of positively formulating the principles of rhetoric from his point of view he left to his colleague, who published during the early part of this period the *Lectures of Omer Talon on Rhetoric*.[5] Ramus also continued his works upon dialectic. While he still felt that all the liberal arts were merely applications of this subject, he published separate treatises upon it. First of all, however, there appeared a much improved edition of the *Institutions of Dialectic*.[6] The next year was printed his vernacular work on the subject,[7] which is considered by some[8] to be his most

[1] *Grammatica græca* (1560) and *Rudimenta grammaticæ græcæ* (1560).

[2] *Gramere* (1562), afterward (1567, 1572, 1587, etc.) *Grammaire de Pierre de la Ramée.*

[3] See pp. 42 ff.

[4] *Scholæ rhetoricæ.*

[5] *Prælectiones in A. Talaei rhetoricam*, 1554 and 1562.

[6] See pp. 30 f.

[7] *Dialectique* (1555).

[8] See Cousin, *Fragments Philosophiques Modernes*, I, p. 14.

important contribution to philosophy, and in the two years following he published respectively his final word on logic in two books,[1] and a modified and much enlarged edition of the *Animadversions*[2] in twenty books which he called *Studies in Dialectic*.[3]

Thus by 1559 the position of Ramus with regard to the *trivium*, or elementary liberal arts, had been fairly formulated, and he was now at liberty to undertake works on the *quadrivium*, especially mathematics. In this subject, however, he was one of the path-breakers, as not much had been done up to this time at the University of Paris. He thus had need of instructing himself before attempting to impart his knowledge to others. He had been one of the best pupils of Oronce Finée,[4] the first professor of mathematics at the University, and while still at the College of Ave Maria, he had produced a translation of the first six books of Euclid, in which he tried to apply logic to the presentation of the subject.[5] Eleven years later he had published an elementary arithmetic.[6] He now returned to the study of geometry with great ardor. For a time, however, he tells us,

[1] *Dialecticæ libri duo* (1556).
[2] See p. 10.
[3] *Scholæ dialecticæ* (1557).
[4] See p. 18.
[5] *Euclides* (1554). See p. 164.
[6] *Arithmeticæ libri tres* (1555).

he was unable to get beyond the tenth book of Euclid and abandoned the subject in disgust. "But soon," says he, "I was ashamed of stopping so, and bringing myself back to the place where I had gone astray I devoured the tenth book, and continued the study of pyramids, prisms, cubes, spheres, cones, and cylinders. Moreover, once I had clambered over the first crags and learned the elements of Euclid, I read through the *Spherics* of Theodosius and the *Cylindrics* of Archimedes. I had already mastered Apollonius, Serenus, and Pappus, and after a few months I was able to pierce the last mysteries of geometry." [1] From this account it can be realized how difficult was the study of geometry at that time. He who would master it had largely to make his own translation from the very imperfect editions of the Greek mathematicians as he went along. Ramus worked at the subject persistently, both alone and with chosen pupils, and not only made himself one of the leading mathematicians of France in his day, but helped to train a number of distinguished mathematical scholars.

He did not, however, begin to work on the subject in earnest until he had been able to secure more

[1] *Oratio de professione liberalium artium* (1563).

leisure and material. Later he was able to procure copies of the Greek mathematicians from the royal library at Fontainebleau, some of the treasures from Venice and the Vatican through the Italian ambassadors, and works from foreign scholars, like Camerarius and Rheticus of Germany and Ascham of England. From 1566 on he gave considerable time to mathematics. While he had Forcadel, whom he had nominated for a professorship in the Royal College, teach arithmetic and geometry in French, he himself lectured on the Greek mathematicians, of whom he had obtained copies. He also bought or had copied manuscripts of Archimedes, Proclus, and others, and had several of the young mathematicians translate them into Latin under his direction.[1] Within a space of four years he wrote some five or six important works on mathematics in Latin or French.[2]

Just before this, while he was enduring an exile of which we shall shortly hear, Ramus also found time to complete the only one of his treatises that

[1] Nancel, *Epistolæ*, p. i, l. 61.

[2] *Actiones duæ mathematicæ* (1566), *Préface sur le Proëme des Mathématiques* (1566), *Prooemium mathematicum* (1567), *Geometriæ libri septem et viginti* (1569), and *Scholarum mathematicarum libri unus et triginta* (1569), are still in existence.

we have upon *Physics*, or natural science.[1] It was taught in the College of France and elsewhere, and he would gladly have devoted much of his life to furthering it, had it not been for the persecutions that were now approaching. After his return to Paris the book was sent to press.

It must not be supposed that the enemies of Ramus were idle during this period of his productiveness or that this reform of the matter and method of the liberal arts was carried on without a struggle. But the controversies were of much the same type of guerilla warfare that he had previously endured and had about as little result. A typical instance is his quarrel with the doctors of the Sorbonne over pronunciation. The professors of the College of France tried to bring back the original pronunciation of Latin in place of the erroneous and slipshod methods into which the university colleges had degenerated. The chief point of discussion was the pronunciation of *qu*, from which combination the Sorbonists were wont to omit the *u* in speaking. For example, they pronounced the Latin words as *kiskis*, *kankam*, *kantus*, and *kalis* instead of giving the initial value of *kw*. Similarly, *h* in *mihi* was pronounced gutturally as *ch*.

[1] *Scholarum physicarum libri octo* (1565).

In the controversy which followed, it is even said[1] that one of the reformers was summoned before parlement and prosecuted for grammatical 'heresy,' and, had it not been for Ramus and his other colleagues, who attended the trial and gave the judges to understand that grammar was out of their jurisdiction, it might have fared badly with the luckless professor. The contest over the reforms of Ramus in rhetoric was also continued by Galland, Périon,[2] and their sympathizers.

But the most rabid opposition was raised to the positions of our reformer on logic. Here Carpentarius, jealous and thirsting for revenge after his defeat in 1551,[3] was most persistent and bitter. He did not dare attack Ramus as lecturer in the Royal College, but the latter's position in the College of Presles enabled him to renew all his virulent methods. He again insisted

[1] Crevier (*Hist. de l'Univ. de Paris*, l. X, § 2) claims that the whole story of prosecution for heresy in grammar is very unlikely, although one would hesitate on that account to impeach wholesale, as he does, all the testimony offered by the Ramists. The incident is narrated by Ramus himself (*Schol. gram.*, l. II) and confirmed by Zwinger (*Theatrum humanæ vitæ*, Vol. IV, l. 1, p. 1100), and, as Waddington intimates (pp. 87 f.), there were few lengths to which the theologians of the day would not go.

[2] See pp. 32 ff. and 43 ff.

[3] See pp. 45 ff.

that the reformer was breaking the university statutes when he taught Aristotle by going freely from idea to idea rather than by the traditional word-for-word method, and he opposed more vigorously than before the union of the study of 'eloquence' with that of philosophy. Happily, however, the parlement held to its previous decision to let Ramus teach as he wished on some two hundred days of the year and at odd hours on other days.[1] Thereupon, Carpentarius, under the pretext of a commentary on the *Institutions* of Ramus,[2] let loose the vials of his wrath. In this pamphlet he repeats all the pet epithets with which he had previously assailed him. Ramus is called 'slanderer,' 'plagiarist,' 'sophist,' 'comedian,' 'skeptic,' and 'corrupter of youth.' He brutally recalls the verdict of the king a dozen years before,[3] and gets a malicious pleasure out of the fact that Ramus was constantly modifying his statements about dialectic.[4] He mocks the reformer's pretensions to dignity and jests about his long beard, declaring that without such artificial aid he himself had been able to attain to the rectorship.

[1] See p. 46.

[2] *Jacobi Carpentarii Animadversiones in libros tres Dialecticarum institutionum Petri Rami* (1555).

[3] See pp. 34 ff.

[4] See footnote 3, p. 65.

Ramus did not consider this mountebank worthy of a reply, but the case seemed different when criticism was offered by Adrien Turnebus. The latter was a learned professor and a man of character and social position, but he had been piqued because the loss occasioned by the death of his predecessor in the College of France had in a eulogy[1] by Ramus been declared to be quite irreparable. In editing the *De Fato* of Cicero, Turnebus embraced the opportunity for venting his displeasure upon Ramus, who had commented upon the same work.[2] In this work Turnebus criticizes the modifications which Ramus made in his dialectic works as his knowledge broadened.[3] He accuses him of inconsistency and instability, and asks: "Which is your genuine position in so many shifting editions? Do you yourself know what

[1] The predecessor of Turnebus in the lectureship was Jacques Tousan, who had been one of the former teachers of Ramus, and had given him much encouragement in his ideas on logic. See preface to his *Platonis Epistolæ*, and *Collectan. præfat.*, pp. 99 f.

[2] The title of the book shows his animus: *Ad. Turnebi disputatio ad librum Ciceronis de fato, adversus quemdam qui non solum logicus esse, verum etiam dialecticus haberi vult* (1556).

[3] While Ramus did not answer this common criticism at the time, he had the year before said in the preface to his *Dialectique:* "But truly this inconsistency is praised as a real consistency not only by Horace and Apelles, but also by philosophers, especially Aristotle, who teaches us that philosophy ought, for the sake of

you wish?" And again he declares: "It is a poor way to conceal your ignorance by unceasingly slandering the great authors. You have only gained thereby a sad reputation for ignorance, impudence, and vanity." Ramus felt that an adverse opinion from such a source must be met, and while he could not openly break his custom of keeping silent under criticism, without loss of time he issued under the name of Talon a dignified and courteous reply.[1] He made it very clear that he did not rank Turnebus with Carpentarius, and rebuked him mildly for his attack. Turnebus in turn replied through a friend, and the quarrel stopped with mutual respect, if not agreement, and before long the two scholars became firm friends.

Thus Ramus escaped practically unscathed from the various attacks upon his reforms, and, as the years passed, his reputation as an educator grew constantly greater. During this period of prosperity, too, he was able to demonstrate his gifts as an orator

truth, to criticize not only all others, but also itself. Moreover, this consistency, accused of being inconsistency, is ordained of God and of Nature, as a difficult and slippery ascent, by walking up which we discover and define the only road to the knowledge of science and learning."

[1] *A. Talæi Admonitio ad A. Turnebum* (1556).

and diplomat. He was chosen by the university to represent it before the king upon various occasions. In 1557, especially, he was greatly commended for pleading the cause of the university under very important circumstances. A quarrel of long standing[1] between students of the university and the monks of St. Germain over the possession of the 'student fields' (*Pré-aux-clercs*) had broken out again with much violence and rioting.[2] While the students were mostly to blame for stirring up the old dispute, they were not the first to shed blood. Yet they alone suffered for the disturbance. The parlement condemned one student to be hanged and burnt,

[1] For a former (1548) outbreak, during which the students devastated the abbey gardens and broke the windows of the monastery with stones, see Du Boulay, *Hist. de l'Univ. de Paris*, t. VI, pp. 406 ff. While Ramus apparently tried on this occasion to pacify the students by haranguing them, he was ever afterward, on the strength of his speech, accused by his enemies of further inciting the students. *E.g.* Félibien, *Hist. de l'Abbaye royal de Saint Germain-des-Prés*, p. 185, and *Hist. de la ville de Paris*, t. II, pp. 102–105 ff. But Du Boulay and De Thou do not even mention Ramus in the affair. In fact, the evidence against Ramus seems to come from a prejudiced source, Jacques du Breul, who was a member of the order and declares he was present at the riot. See *Theâtre des antiquitez de Paris* (1612), l, II, pp. 385 f.

[2] Du Boulay, *op. cit.*, t. VI, pp. 491 ff.; Crevier, *Hist. de l'Univ. de Paris*, t. VI, 29 ff.; Félibien, *Histoire de la ville de Paris*, t. II, pp. 125 ff.

and others, who had been arrested, seemed to be doomed. The same tribunal ordered that the gates of the university colleges be closed at six every evening, the students disarmed, and all public lectures suspended. Moreover, the king, hearing of the riot and being exceedingly wroth, confiscated the fields, required all foreign students to leave the kingdom within a fortnight, and expelled the 'externs,' or students living at Paris with their parents, from the university. In dismay the faculties sent a delegation to the king, to secure some modification of the judgment. Ramus was a member of this commission, and, through his eloquence and his influence with the Cardinal of Lorraine, its most influential member, met with great success. Upon the promise of reform, the king was at length persuaded, quite contrary to all expectations, to revoke the measures against the university, reprieve the condemned students, restore the public lectures, countermand the banishment of the foreign students, and order parlement to stop its prosecutions. The delegates were overwhelmed with praise, especially Ramus, when by request he gave in a public address an account of the whole affair. But the king was also inclined to insure the fulfillment of the promised

academic reforms, and insisted upon the selection of a special committee of seven to investigate and propose what would be most necessary and useful for the improvement of the institution. Ramus was appointed by the faculty of arts, together with his old opponent, Carpentarius, and the report that he offered later [1] was most important in its effects upon the University of Paris in particular.[2]

Another diplomatic mission of Ramus that was of great service to education was his securing the arrears in salary due the professors in the College of France. During the one-year reign of Francis II and the first three years of Charles IX's reign, the Guises were in complete control of the government,[3] and the finances were notoriously mismanaged. For two years the professors of the Royal College failed to receive their stipends, although they continued conscientiously to fulfill their duties, and in 1561 Ramus was sent to petition the king. He was also commissioned to solicit a confirmation and renewal of the privileges for the university, as had to be done at the beginning of each reign. Although his patron, the Cardinal

[1] See pp. 78 ff.

[2] Du Boulay, *op. cit.*, t. VI, pp. 489 and 517 f.; Félibien, *op. cit.*, t. II, pp. 1057 f.

[3] See pp. 11 ff.

of Guise, was no longer at the court to intercede for him, the Prince of Condé, who was in favor with the queen-mother,[1] and other persons of prominence supported his claim and enabled him to bring back a goodly portion of the accrued salaries and all the former charters and privileges of the university, bound in a single volume. His zeal and tact aroused great enthusiasm in the academic circles, and an account of his services to the university was inscribed at the end of the manuscript of privileges.

Hence by 1561 nearly all the old adversaries of Ramus, including even the fanatical Galland and the offended Turnebus, had been conquered through his persistence and evident sincerity. Esteem succeeded hostility with every one save Carpentarius. The opposition of that unprincipled leader was now increased through envy, for Ramus had come into high favor with king, parlement, and university.

[1] See pp. 11 ff.

CHAPTER IV

Conversion, Persecution, and Death

Much of the prestige that Ramus had obtained would seem to have been due to the friendship of the Guises, who were so influential in church and state. It now remains for us to see the effect upon his career of becoming a Protestant and so sacrificing their friendship. The Duke of Guise and his brother, the Cardinal of Lorraine, represented the extreme Catholic party, and Ramus, while endeavoring to dethrone Aristotle, had remained a member of the church in good standing. Until 1561 he maintained in his own life all the observances of a zealous Catholic. He went to mass every morning at six, and, under penalty of a severe reprimand, required the same practice of the students in the College of Presles.[1] He was attached to Mother Church by bonds of unusual emotion and material interest, but the process of his conversion, while slow, was inevitable. He was too clear-headed not to have misgivings as to the efficacy of the ritual and dominant theology of

[1] Nancel, *op. cit.*, pp. 23 f., 53, 70.

the church of the times, and his personal and professional associations all tended to draw him into the Protestant camp. The medieval Aristotle, whom he had vigorously assailed, was still protected by the church, and the two were so thoroughly identified as to be almost indistinguishable. Those who departed from the traditional views of the Greek philosopher were reputed to be heretics,[1] and it could not be denied that such reformers as Luther, Zwingli, and Calvin had first dreamed of suppressing Aristotle.[2] Moreover, the clergy were generally very ignorant, and an intellectual man was bound to find himself associated, to a great extent, with the Huguenots, who at the time had nearly a monopoly of learning. A majority of the professors at the College of France were actually Protestants or suspected of being such, and many of the patrons and friends of Ramus were more or less under the influence of the new religion.[3] A large number of his pupils

[1] Rapin, *Réflexions sur l'usage de la philosophie*, § VI.

[2] Two of the propositions of Luther condemned in 1521 by the faculty of theology at Paris related definitely to Aristotelianism. See also pp. 5 ff.

[3] It is said that even the Cardinal of Lorraine sympathized secretly with the aims of Protestantism, and his attitude at the Colloquy of Poissy points that way. Jean de Montluc, bishop

at the College of Presles, too, were of Huguenot parentage, or became converted through the influence of the school.

Ramus himself was early suspected [1] of Calvinistic leanings. Ascham even wrote to Sturm [2] in 1552 that one of the pupils of Ramus had stated that while his master's convictions were secretly Protestant, he still hesitated to make an open confession of his faith. But for nearly a decade longer Ramus protested his attachment to the church, and insisted that he had attacked Aristotle simply in the name of the Gospel, on the ground that his *Ethics* was heretical and pagan.[3] The immediate cause of his conversion was the Colloquy of Poissy. This conference took place in September, 1561, with the idea of bringing out a discussion of the points of difference between Catholics and Protestants and so effecting some degree of toleration between the two parties, but it resulted only in increasing the bitterness.[4] Strangely enough, it was not the speech of Theodore

of Valence, was also sympathetically inclined, and frequently showed himself a good friend to the Protestants.

[1] Nancel, *op. cit.*, pp. 33 and 63.

[2] *Letters of Ascham* (Oxford, 1703), Book I, Letter 9.

[3] Du Verdier, *Bibliothèque française*, article on *Aristotle*.

[4] See p. 74.

Beza,[1] the able exponent of Calvinism, that convinced Ramus, but the argument made in reply by the Cardinal of Lorraine. That prelate publicly admitted all the abuses of the church, the vices of the clergy, and the superiority of the primitive church to that of the day, but did not grant the obvious conclusion.[2] Ramus and others felt it forced upon them.[3] A letter written by Ramus to his former patron some nine years later states definitely how the address affected him. He says in part: —

"It is not through myself, it is through your favor (the greatest of all the many you have heaped upon me) that I have come to understand the precious truth, so well presented in your discourse at the Colloquy of Poissy: namely, that of the fifteen centuries which have passed since the advent of Christ, the first was truly the 'golden age,' and that, in proportion as it has been departed from, all ages which have followed have been more vicious and corrupt. Hence, having to choose between these different ages

[1] See p. 10.

[2] Guillemin, *Le Cardinal de Lorraine*, p. 487.

[3] The colloquy is now believed to have greatly increased the number of Huguenots. See Crevier, *op. cit.*, t. VI, p. 127; Pueux, *Hist. de la Réformation Française*, Book IX, Chaps. VIII–XIII. Among the converts was also Caraccioli, bishop of Troyes.

of Christianity, I attached myself to the 'golden age,' and since that time I have never ceased to read the best writings of theology. I have put myself in harmony and communication with the theologians themselves as far as I could; and have further, for my own edification, written *Commentaries* upon the chief points of religion." [1]

Thus, having once started on the new line of thought, Ramus went the full way. The commentaries mentioned above were the result of his attempt to apply dialectic to theology, as he had to all the other sciences of the day, but they were not completed until after his contact with the reformed theologians in Switzerland, and were published after his death. He began to absent himself from mass and the other usages of the church, and even quietly protested against them. To an intimate friend he declared that "two things have been especially misunderstood and distorted by all Christians of latter days, — to wit, the sacrament of the Holy Supper, and the second commandment in the law, which forbids all worship of images; so much so that, in these two respects, under the pretext of piety, we have fallen more and more into an execrable idolatry." [2] Of

[1] *Collect. præf.*, pp. 257 f.

[2] Banosius, *op. cit.*, p. 25.

course no sentiment could be more clearly Protestant than this, and we cannot be surprised to find that Ramus now, while not openly out of communion with the church, showed great toleration, if not marked favor, to all Huguenots among his students. It seems hardly possible that he ever went to Protestant services, much less that he took his students there, as did some professors, but it is more than likely that he was among those intended to be reprimanded by the rector in his address of November 30, 1561.[1] And it is certain that the students of the College of Presles were generally becoming reformed and deserting the Catholic observances. A pupil of Ramus tells us that at the Feast of the Passover in 1562 he and his master were the only two communicants in the chapel, except for one visitor, who had strayed in.[2]

The Reformation, however, had grown to such proportions that the queen-mother, upon the advice of the fair-minded chancellor of the kingdom, Michel de l'Hospital, felt obliged to issue the Edict of Toleration.[3] While this did not go the full distance and allow the Protestants to worship in the cities or in

[1] See the account of Crevier (*op. cit.*, t. VI, p. 126) and of Du Boulay (*op. cit.*, p. 545).

[2] Nancel, *op. cit.*, p. 72.

[3] See p. 12.

the evening, it was hailed with great delight on the part of the Huguenots and with much indignation and opposition from the Catholics. The students of the College of Presles celebrated the event by bursting into the chapel and tearing down the images and statues. Ramus, of course, had little to do with such a desecration, but he received the full blame. His opponents incited the populace against him,[1] and denounced him to the university authorities as an iconoclast, but an investigation by the rector failed to reveal the evidence desired against him.[2] On the other hand, the rector and a majority of the principals of the university colleges made a violent demonstration against the decree, and exhausted every expedient to prevent the parlement from registering it.[3] When, after two months of delay,[4] the parlement did finally register the obnoxious edict, all the smoldering wrath of the Guise party burst into flame.[5] The Duke of Guise declared openly that "his sword would never be sheathed until he com-

[1] Nancel, *op. cit.*, p. 71.

[2] Banosius, *op. cit.*, p. 24; Nancel, *op. cit.*, p. 71; and Du Boulay, *op. cit.*, t. VI, p. 549.

[3] Du Boulay, *op. cit.*, pp. 549 f.; Génébrard, *Chronographie*, p. 746.

[4] Crevier, *op. cit.*, t. VI, p. 129.

[5] See pp. 11 ff.

pelled every Frenchman to become a Catholic or leave the realm." [1]

By this time Ramus must have completely sacrificed all his influence with the Guises. As will be seen later, his warm patron, the Cardinal of Lorraine, had completely turned against him. While himself inclined toward the position of the Protestants, statecraft forced him to become their most bitter opponent. Meanwhile, despite these disturbed conditions, Ramus continued to produce his works on the liberal arts,[2] and in this very year of conflict (1562), as a member of the committee to which he had been chosen five years previously, he presented his report upon academic reform to the king and queen-mother. This *Advice on the Reformation of the University of Paris*[3] boldly attributes many of the abuses that had sprung up to the unlimited number of professors. "For, instead of a given

[1] Pasquier, *Lettres*, l. IV, 10.

[2] See p. 120.

[3] *Advertissements sur la réformation de l'université de Paris au roy*, or, in the Latin edition, *Proœmium reformandæ Parisiensis academiæ ad regem*, was published anonymously, but, coming from the press of André Wéchel, his coreligionist and regular publisher, its origin was evident, especially as, from internal evidence, the author was clearly a Protestant, a professor of philosophy, a royal lecturer, and a member of the commission of investigation. See *Archives Curieuses de l'Histoire de France*, t. 5, pp. 115–163.

number of doctors for teaching, an infinity of men have been raised up, who, provided they have acquired the name and degree of master in the faculty of which they make profession, whether ignorant or learned, without other selection, have undertaken to make a trade of teaching philosophy, medicine, jurisprudence, or theology. Hence has arisen the storm which has despoiled all our fields."[1] But while the instructors have gradually multiplied, the number of students has remained practically the same, and the result has been a great increase in the fees for tuition and degrees. Thus, for philosophy, the expense of the pupils, which was first fixed by ordinance and statute at four to six *écus*[2] at the most, had finally been raised to fifty or fifty-six *livres*.[2] Later, he shows that the professional faculties have become even more disproportionate. The faculty of law, in obedience to the statute of 1534, is content with twenty-eight *écus* per student, but "the faculties of medicine and theology, in comparison with that of

[1] *Advertissements*, p. 8.

[2] The *écu* mentioned must have been the *écu d'or*, as the silver coin of that name was not introduced until 1642, and the *franc d'argent*, often called *écu*, was not authorized until 1575. The gold piece was worth a little more than fifty *sols*, or two and one half *livres*, and, judged by the weight and fineness of the American

philosophy, which has only quadrupled its former revenue, have increased their fees, not in *arithmetical proportion*, which would have been beneath their dignity, but in *geometrical proportion*." [1] The professors of medicine, instead of twenty-eight *écus*, now ask eight hundred and eighty *livres*, without counting the presents to apothecaries and barbers, their former pupils,[2] while the theologians demand of their unfortunate students more than one thousand *livres*. This large sum is distributed from the beginning of the course under some thirty items, which include fees for the professors, priors, porters, and president, for the banquets and suppers of the teachers, president, classmates, and examiners; and for the various grades of examination, theses, seals, degrees, sermons, hoods, and perquisites. Moreover, even the honor of being proclaimed first at the master's examination can be bought for a high price.[3] With regard to these unnecessary expenses, Ramus asks: —

"Of what use are so many gloves, caps, banquets,

dollar, worth something over two dollars. Hence the fees in this case were raised approximately from $8 or $12 to $40 or $44.80; *i.e.* they were practically quadrupled. Of course the purchasing value was much greater than it would be for the same sums to-day.

[1] *Op. cit.*, p. 18. [2] *Op. cit.*, p. 24.

[3] *Op. cit.*, pp. 27 ff. Cf. also pp. 11, 22, and 59 for the expenses of the other degrees.

to prove the diligence and competency of the students? Where do so many purses go, and to what use are they converted? They are partly distributed to the procurers, receivers, singers, and priests who say mass and solemn vespers; a good part of this money is even spent on candles for the Day of Purification. In short, the money and the receipt of the degree are administered in such a fashion that those who do the least service for the students receive the most spoils from them. By an ordinance then, sire, abolish that numerous troop of professors, select worthy and competent men as lecturers, remove those expenses and charges, not only the unnecessary, but even the former fees, for it is an unworthy thing that the road to knowledge should be closed and forbidden to the poor, no matter how learned and well educated they may be, and it cannot at present be otherwise, because of the expenses and necessary charges. Sire, but say the word. Numerous convents, monasteries, colleges, and canonries of the city of Paris will think themselves happy and greatly honored to furnish these expenses and will easily and promptly do so, if only you command them. Bring it to pass that the only legitimate expenditures for the scholar shall be those of his living, dress,

books, work, vigils, and the pursuit of letters for the greater part of his life." [1]

He gives a further description of the abuses. The infinitude of masters not only has engendered infinite expense, but has produced neglect in the matter and method of instruction. The faculty of arts is perhaps the least reprehensible in this direction, but the abandonment of the public lectures in the *Rue du Fouarre* [2] and the substitution of inferior private instruction by each college has been unfortunate. It is especially to be regretted that the teachers of philosophy use the questioning method in Aristotle and require nothing in the way of real practice in the use of logic. The grammarians and rhetoricians, however, have set them an example, as they have come to discuss the rules but little, and train their pupils through reading and imitating good authors.[3] The situation is still worse in the professional faculties. In the faculty of law, only canon law is taught, and the civil law is entirely neglected. The professors of medicine and theology are even too lazy to do anything more than preside at the presentation of theses or at public debates, and out of their

[1] *Op. cit.*, pp. 13 ff. Cf. pp. 25, 26, 34, etc.

[2] See pp. 13 ff.

[3] *Op. cit.*, pp. 35 ff.

enormous salaries pay a few *écus* to any bachelor or newly made master that they can get to do their work for them. For the same reason, in medicine the practical exercises in searching after and analyzing herbs and simples, in experimenting with their effects upon the body, and in discussing symptoms and remedies are totally neglected; and the theologians are likewise too lazy to be anything but blissfully ignorant of the Scriptures.[1]

The remedy of Ramus for both this exorbitant cost and this inferiority of university training is exceedingly simple, but apparently very revolutionary. He proposes that the king appoint a small number of public professors, who shall be paid by the state, and teach the various branches of philosophy, law, medicine, and theology, and lay aside all disputations and barren argumentations. Thus he would have strong, regular, and gratuitous instruction given in all the faculties. Specifically, he would establish in the faculty of arts a chair in mathematics and add work in 'physics'; in the faculty of law, instruction in civil law; in the faculty of medicine, chairs of botany, anatomy, and pharmacy, and the genuine practice of medicine under the supervision of the professors;

[1] *Op. cit.*, pp. 61 and 82.

and finally, in theology, besides the regular lectures, he would give the students a training in the study of the Bible and the interpretation of both testaments in their original languages. Further, he suggests that a line of demarcation be drawn between these higher subjects and the lower work in grammar, rhetoric, and dialectic, and that the latter studies be relegated to the colleges, which, after the establishment of public chairs, would otherwise be without a function. These suggestions were badly received at the time Ramus offered them, but they were largely carried out in the succeeding reigns of Henry III and Henry IV. In the suggested distinction between secondary and superior instruction, however, he anticipated a movement that was not realized until after the French Revolution.

Throughout this treatise on academic reform the attitude of Ramus toward the theologians and the clergy, together with his insistence upon a purified Bible and the careful study of the Scriptures, shows how much further he had progressed in Calvinism. In every reform suggested he now appears in spirit to be a zealous Protestant. His religious practices reveal a similar change. This is seen in the character of the worship in his college chapel. He here modi-

fied the nature of the sermons, abolished services for the dead and prayers to the saints, and followed in general a service very different from the orthodox one.[1] This afforded his enemies a hold upon him that they had never been able to secure through his heresies in philosophy and rhetoric.

Meanwhile, the bitterness between Catholic and Huguenot had been increasing. Owing to the political ambitions of the Guises on the one hand and the 'Huguenots of State' on the other, the chancellor of the realm had been unable to bring about the peace and harmony for which he had striven. The massacre at Vassy occurred (1562), and became the signal for the outbreak of the first of the civil wars.[2] The outraged Huguenots, despairing of justice, flew to arms, and France was deluged with blood. In July of this year the war governor of Paris banished all Calvinists from the city, and Ramus was forced to flee. He left the administration of the College of Presles to one of his professors, but the absent principal was declared a traitor, and his office was turned over to a more orthodox, if somewhat ignorant, incumbent.[3] Safe

[1] Nancel, *op. cit.*, pp. 71 f. [2] See p. 12.

[3] See Du Boulay, *op. cit.*, t. VI, p. 659; Félibien, *Histoire de la ville de Paris*, t. II, p. 1084.

conduct was, however, assured Ramus by the king and queen-mother, and he found asylum in the royal palace at Fontainebleau.[1] Amid the beautiful surroundings of this place and the treasures of the royal library, he forgot everything except his studies, until enemies discovered his whereabouts. Then he escaped death at their hands only by fleeing again, and for a time was pursued from pillar to post. Finally, in March of the next year (1563), the peace of Amboise enabled him to enter Paris again, and live in quiet for a few years.

Upon his return Ramus without difficulty got back his principalship at Presles and his chair in the Royal College. At the beginning of the academic year he delivered his famous address upon the twelve years of his work as a professor in the College of France.[2] In it he tells of his intention to gather up the threads of his writing once more and indulges the vain hope that war will never again disturb the liberal arts, 'the daughters of Peace.' During the next few years he published his works on physics and mathematics already mentioned[3] and completed a work

[1] Freigius, *op. cit.*, pp. 26 ff.; Ramus himself in his *Oratio de sua professione* also furnishes us with full details of his stay here.

[2] *Oratio de sua professione liberalium artium* (1563).

[3] See pp. 61 f.

upon the metaphysics[1] of Aristotle. But the theological and medical faculties could not forget his address upon the reform of the university, and were on the lookout to catch him upon the hip. More implacable than any other was his inveterate enemy, Carpentarius, who constantly hounded him with pamphlets. To that blatant individual Ramus, as usual, paid no attention, but his distinguished pupil Arnaud d'Ossat, afterward a cardinal, did reply with a strong defense of the dialectic of his master,[2] which Carpentarius answered only with a storm of abuse. Moreover, the Jesuits,[3] who had been vainly endeavoring to have their College of Clermont recognized by the university, had at length found a complaisant rector[4] who was willing to issue the 'letters of scholarity.'[5] Ramus was among those who were active in their opposition to the recognition of this order, and in the suit before the parlement that resulted, he was one of the two advocates chosen to oppose them. But the

[1] *Scholarum metaphysicarum libri quattuordecim in totidem metaphysicos libros Aristotelis* (1565).

[2] *Expositio Arnaldi Ossati in disputationem Jacobi Carpentarii de methodo* (1564).

[3] See p. 3.

[4] Julien de Saint Germain (1564).

[5] Crevier, *op. cit.*, t. VI, pp. 165 f.

parlement was afraid of the Guises, who allied themselves with the cause of the Jesuits,[1] and yielded to pressure. This brought Ramus further enemies, whereas Carpentarius, who had toadied to these powerful foes during the contest, won over thereafter the Cardinal of Lorraine as his 'Mæcenas.'

A more formidable controversy for Ramus was occasioned by the seating of Carpentarius in a chair of mathematics at the College of France, although he was quite ignorant of the subject. The professorship had through politics been given in the first place to Dampestre Cosel, a mediocre mathematician from Sicily, who could speak neither Latin nor French, but upon the request of Ramus and his other colleagues that he be examined, this incumbent undertook to sell the position to Carpentarius. This was an unheard of proposition, but was probably suggested by the Cardinal of Lorraine and connived at by the court.[2] Although ignorant both of Euclid and of the language in which that author wrote, Carpentarius was appointed in February, 1566, and refused to submit to the examination which the king had established by edict. When the case was brought

[1] Du Boulay, *op. cit.*, t. VI, p. 521.

[2] See *Oratio initio suæ professionis habita* (1566), fol. 7 v.

before the parlement, the professor-elect admitted his ignorance, but declared there were other subjects upon which he could temporarily lecture and that he could become posted on mathematics 'within three days.'[1] He further pleaded his service to the university, Catholicism, and the Aristotelian philosophy so effectively that the parlement provisionally confirmed the appointment and gave him three months within which to prepare himself to teach mathematics.[2] But even these terms were not favorable enough for Carpentarius. Accordingly he induced the corrupt recorder to change the decree of parlement so that it would read that he should *begin the study of Euclid within three months* and set no limit to the time when he should be prepared to lecture, and that, instead of teaching mathematics and philosophy, he should teach mathematics *or* philosophy. As a result, Carpentarius began by lecturing on Aristotle's *De Coelo* and then turned to the *Commentaries on Plato* by Alcinous, and never touched mathematics. He further presumed to demand a fee from his students, a proceeding quite contrary to the spirit of the College

[1] *Schol. Math.*, l. I, p. 21.

[2] *Collect. præfat.*, p. 544; Du Boulay, *op. cit.*, t. VI, pp. 650 ff.; *Schol. Math.*, l. II, p. 63.

of France and hitherto unknown in the history of the institution. This last step was too much for Ramus to endure, and he straightway addressed a *Remonstrance to the Privy Council.*[1]

The fear of the Guises, however, was too strong to permit any appeal to be effective, and Ramus, for all his pains, succeeded only in changing the envy of his rival to a mortal hatred. The spite of Carpentarius soon showed itself in a series of libels and accusations against Ramus,[2] which grew so scurrilous and serious that the reformer was forced to have his defamer prosecuted and forced to retract.[3] Thereupon Carpentarius endeavored to have him mobbed or assassinated, but, thanks to the courage and presence of mind of Ramus, these attempts also failed.

About this time (September, 1567) the Guises had succeeded in fanning another civil war into flames. Ramus escaped the massacre that ensued by fleeing to the camp of the Protestants at St. Denis, and while not taking part, he was a spectator at the in-

[1] *Remonstrance au conseil privé* (1567). The most important portions of this are quoted by Waddington, pp. 411–417. It gives a good account of the details that have been outlined above.

[2] See *Jacobi Carpentarii admonitio ad Thessalum* (Paris, 1567); *J. Aurati Poëmatia*, l. IV, pp. 275 ff.

[3] Nancel, p. 63.

decisive battle that took place there. He did, however, render a conspicuous service to the Protestants through his eloquence in inducing the German troopers who had been summoned to the aid of Condé and Coligny to continue to serve for less than one third the sum they had been promised.[1] Soon after this the Peace of 1568 enabled Ramus to reënter Paris and take up his duties once more, but he was scarcely settled before he perceived another storm brewing. He thereupon persuaded the king to grant him leave of absence to visit the chief universities of Germany and Switzerland, as he had long hoped to do. Before leaving, however, he drew up his will and patriotically left the bulk of his fortune to found a chair of mathematics at the College of France.[2] He then wrote a most eloquent *Farewell Letter to the University of Paris*.[3]

The travels of Ramus during the next two years (1568–1570) were nominally a species of thinly disguised expatriation, but they soon took on the character of almost a triumphal journey and a matter

[1] Brantôme, *Hommes illustres*, disc. LXVI; De Thou, *op. cit.*, l. XLII.

[2] This will is given in full by Waddington, *op. cit.*, pp. 326–328.

[3] *Petrus Ramus rectori et Academiæ Parisiensi* (1868). See *Collect. Præf., epist.*, etc., p. 206.

of great moment to the entire scholastic world.[1] A review of them in detail would furnish a very fair picture of the intellectual and religious activities in some of the most important centers in northern humanism and the Reformation.[2] With two of his pupils as secretaries, Ramus visited a large part of Germany and Switzerland, and conferred with the most renowned scholars in classics, mathematics, logic, and especially theology. He continued afterward to correspond with those he visited, and the letters, as far as they have been preserved, form a thesaurus of source material on the movements of the sixteenth century. The 'French Plato,' as Ramus was called, was received with great consideration by all the universities and cities to which he came. At times, of course, he found opponents, but he made more partisans, and the dissemination of his philosophy left academic Germany divided in two camps, the Aristotelians and the Ramists. His reputation was fully maintained, and efforts were made at several places to hold him permanently. Well-endowed chairs were offered him in the Palatinate, Westphalia,

[1] See especially the account of Banosius (pp. 26 ff.), one of the secretaries.

[2] See pp. 5 ff.

and even Poland, Transylvania, and Hungary. While there is reason to believe he might have liked to lecture at Strassburg, Heidelberg, or some other university near the French border, in order to impress Paris with his overwhelming success, he generally declined the offers that were made him. It may be that he did this for the same reason he had assigned when called by the University of Bologna half a dozen years before: "I am a Frenchman, and it is through the favor of the king of France that I have pursued my studies for many a long year. I belong, therefore, entirely to my country and my king." [1]

Under the safe conduct of the king,[2] Ramus moved almost directly east across France, and came first to Strassburg. Here he was met by a large delegation and acclaimed like a prince of the blood. He was entertained at the home of the famous humanist, Sturm,[3] with whom he had corresponded. The two friends were now able to discuss personally

[1] *Collectan. præfat.*, pp. 195 and 198. [2] *Op. cit.*, p. 190.

[3] It was supposed until recently that Sturm and Ascham were complete converts to Ramism, but Guggenheim (*Beiträge*, pp. 141 ff.) has shown by a letter that passed between the two scholars that while they were influenced by the new dialectic and were somewhat sympathetic, they did not altogether approve his criticism of Aristotle and Cicero.

the study of the liberal arts, the education of youth, the nature and effect of rewards, and other problems in school and educational work generally. The professors of the university and the teachers in the gymnasium [1] gave Ramus a public proof of their esteem by tendering him a banquet.

Next, the reformer followed the Rhine south to Basel.[2] He visited Freiburg on the way, and, meeting there the mathematician, Schreckfuchs, studied in his library a marvelous celestial globe of brass arranged according to the system of Copernicus. At Basel he sojourned for the rest of 1568 and most of the following year. Here he met Freigius, professor of rhetoric, who became one of his most devoted disciples.[3] He also found a number of his former pupils, including the printer, Hervagius, and the professors Jerome Wolf and Theodor Zwinger, and became acquainted with the grammarian, Felix Platter,[4]

[1] See p. 3.

[2] The details of his visit here are taken mostly from his eulogy on the people of Basel in his work known as *Basilea*. See pp. 99 f.

[3] We are indebted to Freigius for one of our most authentic accounts of the life and work of Ramus. See footnote 1 on p. 19.

[4] This was the son of that Thomas Platter, who, at his son's request, wrote the autobiography that has shed so much light on the schools and education of the sixteenth century. See Monroe's *Thomas Platter*.

and the theologian, Samuel Grynæus, and with many scholars and men of prominence. The hostess of Ramus in Basel, however, was the pious Catherine Petit. This lady had entertained Calvin while he was writing his *Institutes of Christianity*,[1] and was filled with memories of that great leader. Ramus was also much impressed at Basel by a memorial of another famous reformer, — the monument erected to the wise and pious Œcolampadius. At this center of Protestantism, he seized the opportunity for increasing his knowledge of theology by listening to the lectures of Sulzer [2] and Coccius on the Old and New Testaments in the original languages, and here laid the groundwork of his posthumous *Commentaries on the Christian Religion*.[3] He likewise made it convenient, before leaving this part of Switzerland, to confer at Zürich with Bullinger and Simler, leaders in Swiss Protestantism, and get their advice and that of the other theologians upon his projected treatise.

Ramus did not, however, give all his productive

[1] See p. 10.

[2] His pleasant relations at Basel were marred only by a controversy with this same Sulzer, and probably for this reason he alludes to the tolerant Brandmüller as the real successor of Œcolampadius. See Bernus, *Pierre Ramus à Bâle* (Paris, 1890).

[3] *Commentariorum de religione Christiana libri quattuor* (1576).

time in Switzerland to theology. While at Basel, one of the centers of printing, he produced two of his chief treatises on mathematics, and combined his views on grammar, rhetoric, dialectic, physics, and metaphysics into a single work, *Studies in the Liberal Arts*.[1] Here also were published the letters that had sprung from a rather unpleasant controversy over dialectic with Schegk,[2] professor of philosophy at Tübingen. It was from Basel also that he wrote Sturm he would accept a position in the gymnasium, in order to make known his method. But in spite of the recommendation of that scholar and the Protestant tendencies of Ramus, his services were declined by the conservative authorities, on the ground that he was 'not an Aristotelian.'

He visited other centers in Switzerland and met many prominent scholars, theologians, and reformers in each, but in no other place was his stay very long. He next went north along the Rhine to Heidelberg, where he sojourned for some time at the home of Tremellius, the professor of Hebrew, from whom he

[1] *Scholæ in liberales artes* (1569).

[2] *P. Rami et Jacobi Schecii epistolæ, in quibus de artis logicæ institutione agitur* (1569). Two years later at Lausanne he published on the same subject *Petri Rami Defensio pro Aristotele adversus Jac. Schecium.*

acquired a complete defense of the reformed theology.[1] He met here also the leading professors and councilors of the Palatinate, and was invited by the elector, Frederick III, to accept a temporary place in the university.[2] While the faculty of 'arts' professed to admire Ramus personally, they resisted this appointment to the utmost. Although devoted Protestants, they were still too conservative to sympathize with a man who taught his own philosophy, which was quite 'opposed to the truth and the doctrine of Aristotle.' The sovereign exerted his authority to the utmost, and, in spite of repeated remonstrances, Ramus was announced to lecture on Cicero's oration, *For Marcellus*. Two factions also appeared among the students, and every obstacle was thrown in the way of his lecturing,[3] but in the end, owing to his eloquence, his instruction on this subject was enthusiastically received. When, however, by special request, Ramus undertook to lecture on dialectic, a more serious insurrection broke out in the fanatical

[1] *Letter to Sturm*, October or November, 1569.

[2] *Letter to Zwinger*, October 30, 1569.

[3] Even the steps to the lecture platform were taken away, and Ramus mounted to his rostrum only by the aid of one of the French students, and the lecture was at first interrupted with hisses, hoots, and stamping.

faculty, and the elector was forced to suspend the lectures for a time. Whereupon, writes Ramus to his friend Zwinger: —

"Seizing the opportunity of disengaging myself, I told the elector that there was some ground for the opposition, since, if I should continue to teach a month longer, a revolution in studies would necessarily result. However, I remarked how surprising it was in my judgment that, when the legitimate child, the noble daughter of the University of Heidelberg, was brought back by me to her own home, she should be treated as a stranger, and repudiated by the professors of the university. The prince asked my meaning, and I answered that I had reference to the true dialectic, as it had formerly been interpreted at Heidelberg by Agricola with the applause of Germany, France, and Italy." [1]

However, this very fear of the Ramistic dialectic and strenuous opposition to it at both Strassburg and Heidelberg, the great centers of humanism, shows how great its influence was becoming. In fact, the visit of Ramus to Germany and Switzerland must be regarded as epoch-making in the history of humanism, Aristotelianism, and theology. His experience

[1] *Letter to Zwinger*, January 23, 1570.

in other places was similar to that already described. When he left Heidelberg, a couple of months later, he first journeyed north to Frankfurt, and thence southeast to Nüremberg and Augsburg. At all these places he held intercourse with the leading humanistic, mathematical, and scientific scholars, and visited the chief libraries and museums. In Augsburg he became acquainted with the famous Tycho Brahé, who, although but little more than a boy at the time, had already made numerous astronomical observations and begun the hypotheses upon which his later renown rests.

Now, however, hearing rumors of approaching peace, Ramus hastened south rapidly through Switzerland to Geneva, in the hope of reaching France sooner. He was kindly received by Geneva, although considerable opposition to his dialectic had arisen through his correspondence with Theodore Beza, the successor of Calvin in the administration of the city. Upon request he gave a brief course here upon Cicero's Catilinarian orations according to his method. He made a profound impression, and many of the students adopted his logic at the time. Ramus next went a little out of his way to Lausanne to publish some of his works, especially the discourse in

honor of the people of Basel.[1] In this city again he met a number of humanists and theologians and gave lectures on dialectic, but soon felt impelled to start back to Paris.

Upon his return to the university, Ramus found that his enemies had not been idle during his absence.[2] In the face of the general amnesty, they had induced the timorous king to interpret the agreement in such a way as to bring Ramus under the head of 'deserters from the faith,' who had forfeited their privileges in Paris. Two obscure men had been installed in his positions at the College of Presles and the College of France, respectively,[1] and realizing that the Cardinal of Lorraine had abandoned him to his persecutors, he appealed to his old comrade and protector in this letter of protest : —

"It was in your early youth, nearly thirty years ago, that our mutual attachment arose. I was myself very young then, but since those days I have never ceased to publish and celebrate through all the world your friendship for me. However, such is the misfortune of the times that to-day certain evil-minded persons go about declaring that

[1] De Thou, l. XLIV to the year 1568.

[2] Du Boulay, *op. cit.*, t. VI, pp. 658 ff. and 712 ff.

the Cardinal of Lorraine is removing Peter Ramus not only from his chair at the Royal College, to which he was appointed by King Henry upon your nomination, but also from the principalship of the College of Presles, — that is to say, from the fruit and recompense of all my former labors. After completing my study and reform of the first five liberal arts, and showing an equal zeal, or even greater, for the advancement of the last two, I had reason to expect a different treatment. Wherefore, in the name of the white hairs that advise us both that death is not far distant, do not suffer the end of our relations to be so vastly different from the commencement, and from a smiling beginning to close the whole course of our years with so sad a finale. Do better than this; condemn me rather to the hard and unremitting task of forging and polishing the sciences. I would cheerfully do more than that, and such a vengeance would be more becoming your magnanimity and high-mindedness." [1]

But he was not destined to receive either favor or satisfaction from his former patron. In reply, the cardinal evaded the issue by reproaching him in a friendly way for not coming to see him, and then

[1] See *Collect. præfat., epist.*, pp. 254 ff.

accused him of ingratitude, impiety, and rebellion.[1] Taking this as a sincere expression, Ramus wrote another letter. He explained his not seeing the cardinal in person on the ground that he would have run grave risks in so doing. As to 'ingratitude,' he declared that he had, 'through his own labors and the sweat of his brow,' shown himself worthy of the chair bestowed upon him, and that he would long since have resigned and accepted the better endowed chair at Bologna, had he not hoped by remaining to show his appreciation of past favors. As to 'impiety,' his religious change should not be considered an apostasy, but a return to the truth of the Gospel and the primitive church which the cardinal himself had praised at the Colloquy of Poissy. With regard to 'rebellion,' he insisted that his flight to St. Denis was the only way in which he could escape assassination and that he had not borne arms in the battle[2] against the government, and that he had soon left the country for his visit to Germany and Switzerland. He further besought the cardinal that, instead of descending to such petty matters, he should allow him to complete his treatises on the two remaining liberal arts and then devote the rest of his life to a study of

[1] See footnote on p. 101.

[2] See pp. 90 f.

the Scriptures, and that the prelate himself should turn to the more holy occupation of establishing through the income of one of his numerous abbeys an association of scholars who should carefully translate both testaments into Latin and the vernacular, and make a systematic arrangement of the principles of Christian doctrine and practice.[1] But the intriguing cardinal had no time for such an ultramundane program, and began to find his old friend not only a nuisance, but possibly an obstacle to his ambitions. Without more ado, he refrained from interfering with the program of the reformer's enemies, and on the 15th of December, 1570, Ramus was excluded from active teaching and administration in the university.

In these extremities Ramus thought of retiring to Geneva, where many would have been glad to see him installed as a professor, and he asked a friend to sound Beza, the head of the government of that city. But Beza clearly, though politely, repulsed his overtures upon the excuse that there was no vacancy in the faculty and the university had no funds to establish another chair. He added what was probably his real animus, that he was inflexibly attached to Aris-

[1] See *Collect. præfat., epist.*, pp. 255 ff.

totle in logic and all other studies. Ramus was thus forced to give up all hopes in this direction, and fell into the depths of despair. But at this moment another old schoolmate, the Cardinal of Bourbon, who had become the chancellor of the university, interceded for the reformer with the queen-mother, and secured for him an honorable compromise. It was arranged that he should have his titles as principal at Presles and as professor in the Royal College restored to him, and that his salary in the latter capacity should even be doubled, but that he should retire from active service and give his time to writing and translation.

Ramus joyfully accepted these conditions, and in 1571 settled down at the College of Presles to complete and revise all the liberal arts. But his persecutors were not yet satisfied. They continually maintained that the very presence of a Huguenot professor was keeping proper-minded parents from sending their sons to a university infected with heresy.[1] Carpentarius further attempted to persuade his colleagues in the College of France that the reputation of having a heretic on the staff was injuring the institution, and threatened them with the wrath of the

[1] Du Boulay, *op. cit.*, t. VI, p. 669.

Cardinal of Lorraine and the suppression of the college, in case the offender were not expelled.[1]

It must have become more and more evident that Ramus was doomed. His enemies would obviously be satisfied with nothing short of his banishment or death. Among those who realized this was his friend, Jean de Montluc, Bishop of Valence, who seems to have been a Protestant at heart and often proved a good friend to the reformers.[2] It is not unlikely that he had heard rumors of an impending massacre of the Huguenots, and had especial fears for Ramus. At any rate, it is known that he tried to attach that reformer to his embassy, when on the 17th of August, 1572, he was sent to persuade the Poles to accept the French king's brother as their sovereign. Ramus had some scruples about undertaking the mission[3] and thus was left in the city during the terrible slaughter of St. Bartholomew's, which began just a week later.

It was not, however, until the third day, the twenty-sixth, when most of the excesses were over, that Ramus met his death, and the outrage seems to

[1] Carpentarius, *Orationes* (1568).

[2] Dareste, *Essai sur Fr. Hotman*, p. 9.

[3] Banosius, *op. cit.*, p. 18.

have been a piece of private revenge on the part of Carpentarius rather than a result of the general massacre.[1] Hired assassins, led by a tailor and a sergeant, forced their way into the College of Presles and at length found Ramus in his little study on the fifth floor. He was devoting his last moments to prayer, and, as the old man rose from his knees, his venerable dignity seemed for a moment to have overawed the intruders. Seeing, however, that he could hope for neither pity nor mercy, he commended his soul to God and sought forgiveness for his transgressions. If we may believe his biographers,[2] his last utterance was strangely like that of his Master on Calvary. "Pardon these wretched men, my God,

[1] Waddington devotes a chapter (IX) to this very likely supposition. Besides the testimony of Nancel (p. 74), who declares that the murder was contrary to the wishes of the king and queen-mother, he bases his further proof upon the unanimity of all historians, especially those who were contemporary, and upon the character of Carpentarius and his writings. Carpentarius had been reared by Galland in hatred of all innovations; he was the only man at the time systematically writing against Ramus; his ignorance had been exposed and his pride injured by Ramus in the matter of his assumption of the chair of mathematics in the Royal College; and his constant attempts afterward to explain the death of Ramus as due to public feeling and as a just punishment, look suspicious.

[2] See Banosius, pp. 34 f.; Nancel, pp. 74 ff.

for they know not what they do!" Shot through the head and pierced with a sword, he was flung from the window. His fall was somewhat broken by a projecting roof, and the body fell palpitating into the courtyard of the college. There further indignities were heaped upon the body, and it was dragged with a rope through the streets until the Seine was reached, where a surgeon struck off the head, and the trunk was cast into the river. Later it was drawn ashore again and hacked to pieces on the banks of the Seine.

CHAPTER V

General Principles and the Organization of Education

During his stormy career Ramus had demonstrated in his practice at the two colleges he served, and formulated in the textbooks he had written upon the liberal arts and theology, the way to an education of broader scope and greater efficiency. His chief aim was to spare the student the barrenness and needless difficulties that he himself had been obliged to face. As we have seen, his denunciation of Aristotle grew out of the formal dialectics and senseless disputations that passed for an education during his studentship at the College of Navarre. Accordingly, he turned from the whole system in disgust. He proceeded to divest himself of scholastic philosophy and strove to rationalize the training afforded by the schools. He declares: —

"It was my constant study to remove from the path of the liberal arts the briers and rocks, and all intellectual obstacles and retardations, and to make

even and straight the way, in order to arrive more easily not only at intelligence, but the practice and use of the liberal arts." [1]

Without explicitly discussing the ultimate meaning and value of education, then, Ramus wished to improve the material studied, and to render the methods of acquisition easier and more interesting. He struggled to free all the arts from the barbarism into which they had degenerated by selecting, arranging, and presenting their content according to some definite plan. The principles for these reforms may be summed up in three key-words, — *nature*, *system*, and *practice*.[2]

While he nominally sought his guidance with complete independence of thought and investigation, he seems to have borrowed this trinity of ideals from Quintilian, whose rhetorical work was most influential among the humanists.[3] Of the three principles mentioned, the first applies more to the determination of content and the last of method, while the second comes somewhat into consideration in both connections. His standardization for the

[1] See *Remonstrance au conseil privé*, pp. 27 f.

[2] *Natura, ratio, exercitatio.* See *Instit. dial.*, I, 2.

[3] See *Instit. Orat.*, III, 2. These principles were, however, probably used first by Aristotle.

subject matter, then, he finds in the observation of *nature*. For example, the material for grammar or language study he desires to have derived from actual usage, — the ancient tongues from the classical writers, and the modern from the speech of the people. Similarly, he holds that logic should be based upon observation of the human mind, and natural sciences upon the investigation of nature. The application of this principle will be shown definitely in his treatment of the different liberal arts.

When the subject matter has been obtained, he holds that it must be thoroughly sifted and arranged. The principles for *system*, or arrangement, he seems to have taken from Aristotle, and the laws for defining and organizing the various subjects of study may be termed *universality*, *homogeneity*, and *primacy of the general*.[1] His dialectic works describe these underlying standards in full, but in his other important treatises he also states them, though without much discussion.[2] This shows how rigidly he

[1] Κατὰ παντός, καθ' αὑτό, and καθ' ὅλου; see *Analytica Hystera*, 4. The Latin forms are *de omni*, *per se*, and *universaliter primum*. Ramus may have been more influenced in this by Vives's works and Sturm's lectures on logic, both of which were in agreement with this Aristotelian scheme.

[2] See preface to *Scholæ in liberales artes*, etc.

applied the rules of real logic to all subjects,[1] although he strenuously objected to the stereotyped scholastic dialectic, which had so restricted the content and method of the liberal arts. While the application and elaboration of these principles of 'system' will be made clearer as each one of the liberal arts is treated, it may be well to elucidate them in general here.

In the first place, the law of 'universality' is that every precept must be in keeping with truth, not only in some instances, but always. It must necessarily, and not accidentally, be true; its validity must be incontrovertible. For the arts must have a sure basis; they must, in accordance with Plato's doctrine,[2] rest upon ideas, since they are not created, but have always existed. Judged by this principle, much of scholasticism, especially in dialectics, would be found invalid, since it would not be universally applicable. For instance, the geometrical proposition that 'the sum of the angles of a triangle is equal to two right angles' is valid, but the statement that 'every angle of a triangle is equal to sixty degrees'

[1] See *Remonstrance au conseil privé*, p. 27.

[2] This reference to Platonic idealism is found in the *Scholæ rhetoricæ*, IX, 333. See Plato, *Republic*, Book VI; *Phædrus*, 246 ff.; *Meno*, 80 ff.; etc.

would not hold, since it would not apply to isosceles or scalene triangles.[1] Thus this standard eliminates all fallacies and inaccuracies, and is called by Ramus 'the law of truth.' His second law, that of 'homogeneity,' is that all precepts must be germane to the subject and to each other. For example, Aristotle states that it would be 'unarithmetical' to speak of size in arithmetic, and 'ungeometrical' to deal with number in geometry. Similarly, it is invalid to treat of rhetorical figures in grammar, or of the parts of speech in rhetoric. The boundaries between the arts should be carefully marked so that clarity may be maintained, and, since this principle defines the province of each subject, Ramus names it 'the law of justice.' The third rule is deductive and maintains that the general should precede and the particular should follow.[2] In other words, whatever applies universally throughout a subject should be stated at the outset of the exposition, and only then. For if the particular is stated first, it will not be characteristic of the entire class; and if the universal is postponed, it will have to be repeated in each particular case. To use the

[1] Cf. *Scholæ grammaticæ*, I, 7.

[2] Ramus expresses it tersely as *generalia non speciatim specialia non generatim.*

former illustration, 'the sum of the angles of a triangle is equal to two right angles' is a general characteristic of the figure; it should be stated once at the beginning, and not repeated each time in dealing with equilateral, isosceles, and scalene triangles. This principle helps to produce a clearer arrangement of the material, and, through a natural and appropriate development of each subject, greatly facilitates the memory of the pupil. Consequently it is denominated by Ramus 'the law of wisdom.'

Thus by means of these three laws our reformer undertook to criticize the mass of subject matter employed in the education of the times. He added little to the curriculum, but, as Vives, Sturm, Melanchthon, and other humanists had done in a less degree, he separated the wheat from the chaff. The useless and false material that had crept in through medieval commentaries, sophistry, and faith in authority, he was able, by means of the law of 'truth,' to detect and eliminate, and, by means of the laws of 'justice' and 'wisdom,' he found a more logical and more easily remembered arrangement, and rid the various subjects of confusion and tautology. In this respect his educational ideal of 'nature' and 'observation' may be said to have led to the further aim of clear-

ing the liberal arts of falsehood, surreptitious matter, and repetitions. Or to state the matter positively, his ideal of 'system' implied that the subjects should be given a true, homogeneous, and simple exposition.

In the matter of method, by means of his third principle, *practice*, Ramus also endeavored to make considerable improvement upon the current procedure. The scholastic instruction at the University of Paris consisted in lectures, repetitions, and disputations. These methods were not bad in themselves, but serious abuses had grown up in them. Owing to the scarcity and great cost of textbooks, the lectures had come to consist mostly in lengthy dictations from the authors under consideration. Such time as was given to exposition was largely wasted in literal explanations of the passages read, and there was a plethora of quibbles and hair-splitting distinctions in the discussion of all the liberal arts. The repetitions consisted in the mere mechanical recitation of rhymed rules and difficult definitions. But the most fixed and formal feature of the university method was, as Ramus declared,[1] the disputation. Thanks to the prominence of the scholastic

[1] See pp. 21 ff.

dialectic and philosophy, these fruitless affairs seem to have been the chief goal of instruction from the very beginning of the course.

As Erasmus and other humanists had foreseen, such methods spelled death for the liberal arts, and it was the increasing aim of Ramus to reform them. Like the humanists generally, he constantly attempted to simplify and render the subjects intelligible. Instead of dallying over abstract rules, he advised that the principles be made clear by illustrations taken from the works of the classical authors and by imitation of them in written and oral exercises. But he went much further in rationalizing his pedagogy than Vives, Sturm, and any of the other humanists, although their works doubtless proved suggestive to him. He strove to render the general approach of humanism more specific, and laid out a definite procedure for each portion of the school day.[1] During the first hour the teacher is to lecture on the topic of the day, give the underlying principles, develop, and explain, but make very little of the exercise a dictation. The next two hours are devoted by the pupils to working up, each by himself, what has been learned

[1] *Pro philosophica Parisiensis academiæ disciplina* in *Collect. Præf.*, pp. 325 ff.

during the lecture. The fourth hour is given to reciting to the teacher and making sure that the meaning and rules are understood and memorized. During the last two hours come a discussion and disputation, to discover whether the pupil can develop for himself what has been learned and can explain and apply it independently. This completes the work of the morning, and the afternoon is given to a similar combination of methods.

Thus, according to the general plan of Ramus, five hours are required in every instance to impress and make of value what is learned in one hour. He definitely held that the activities of the teacher should not close with his lecture and dictation, but that he should continue working with his pupils, hearing them recite and correcting false impressions, and especially stamping home the right principles by 'practice' or application. Ramus here, as everywhere, seems to stress application and utility. 'Practice' plays the most important part in his method, since out of it grow the use of rules and the real value of the subject. He frequently makes a division of the daily routine into two chief phases, 'explanation' and 'practice.' The former term appears prominently in exposition, repetition, and even discussion, but he

held that it is in itself senseless and useless. "If we stop with the explanation," says he, "we are like the guests of Heliogabalus." [1] The real end and aim of all method is, in his mind, 'practice,' [2] since only in this way does the student learn to use his knowledge. There are two aspects to this process, — 'analysis' and 'genesis.' [3] The one consists in a critical dissection and testing to see how the author of the example conforms to the rules; the other in first copying the style and thought and producing something akin to the model, and in later creating independently and forming without outside help a work of one's own, which shall not only equal the model, but possibly surpass it. By means of this combination of analysis and synthesis there can be generated a genuine self-activity, and the pupils can be enabled to secure an excellent mastery of the subject matter.

In this way Ramus strove to make the instruction at the College of Presles more interesting, critical, and effective. Thanks to the 'explanation,' the stu-

[1] *Schol. dial.*, IV, 189. An allusion to the banquet at which this emperor smothered the chief men of Rome in a shower of roses.

[2] *Schol. dial.*, XX, 604.

[3] See *ibid.*, VII, 262 ff. and 299 ff.; *Instit. dial.*, III, 360 ff.; and *Schol. rhet.*, XVIII, 381, etc.

dents were never forced to commit what they did not understand, and only so far as it was absolutely necessary did they merely learn and recite, but, by means of the twofold process of 'practice,' they became independent and original. The procedure at which our French reformer aimed was in line with that of Vives, Sturm, and other humanists. These reformers generally tended to abbreviate the theoretical 'explanation' and stress the real 'practice,' and to use for this purpose examples from the classical authors. But no one of them developed his position so clearly and systematically as Ramus, although he did not crystallize his curriculum and method into any such sharp division by years as did Sturm. In the next three chapters we shall see how these principles of content and method worked out in the specific subjects of the liberal arts.

Numerous pedagogical advantages could easily be prophesied for these principles of Ramus in content and method. They naturally augured clearness and brevity in the curriculum, and facility, interest, and economy to the student. We can, therefore, scarcely be surprised to learn that Ramus reduced the length of the course in the liberal arts to seven years. Three years, instead of five, or even seven (with Vives and

Sturm), were given to the languages or 'grammar,' and one year each to rhetoric, dialectic, mathematics, and physics. This curtailment of the years of study was, however, undoubtedly effected by Ramus not only through a better arrangement of the content, but by the fact that he would grant a much smaller number of holidays. With the exception of about thirty days, he believed in holding school the entire year.[1] Under this system, therefore, the pupils, who were supposed to enter at eight, would have completed their work in the liberal arts by the time they were fifteen, and, since Ramus holds elsewhere that the transition to the university should begin at this stage of their work,[2] they would be able to complete their professional course in the latter institution at a comparatively early age.

[1] See pp. 46 and 64.

[2] See p. 84.

CHAPTER VI

The Content and Method of the Trivium

Such were the general principles and laws that Ramus wished to follow in determining the content and method of the liberal arts and other subjects. He was thoroughly convinced of the validity and efficiency of these logical ideals, and felt that by applying them rigidly to each of the disciplines he could greatly clarify and simplify their study. The liberal arts of the times he divided into the 'exoteric,' which were the grammar, rhetoric, and dialectic of the old *trivium*, and the 'esoteric,' which corresponded roughly to the former *quadrivium*, and with him included mathematics (*i.e.* arithmetic and geometry), physics, metaphysics, and ethics. The 'exoteric' arts were, of course, easier of approach and of more general utility, and with them he began his reform. While 'dialectic,' or logic, has been shown to underlie the arrangement and presentation of them all, we will here take them up in order and turn first to grammar.

As far as grammar was concerned, at Paris in the time of Ramus the medieval textbooks and methods held complete sway. *The Elegancies of Latin*[1] by Valla had for almost a century been paving the way for an improvement of Latin writing, but the work was scarcely known in Paris. There Donatus and Priscian had been replaced by such works as the *Doctrinale* of Alexander of Villedieu, which, for the sake of easy memorizing, were often written in bad verse. One of the most popular of these was the *Rudiments* of Despantère, which began its vogue about the time that Ramus was born. The most difficult and unintelligible presentation of grammar blocked the way to any real knowledge of the subject, and while the poets, like Vergil and Ovid, were able to persist and furnish some notion of style, the Latin prose writers were still generally forbidden as heathen.[2] In consequence, the most atrocious Latin was common. The colloquial abominations of the schoolmen and the theologians, mixed with an extensive collection of barbarisms and Gallicisms, were in general use in the higher schools. At times even the pro-

[1] *Elegantiæ Latinæ.* See Voigt, *Die Wiederlebung des classischen Alterthums,* II, 378.

[2] See Paulsen, *Geschichte des gelehrten Unterrichts,* pp. 24 f.

fessors of the university were positively ungrammatical.[1] Moreover, the grammatical treatises of the day were inaccurate, repetitious, and filled with dialectic and metaphysical discussions quite foreign to the subject.

We have already narrated[2] how, between the years 1559 and 1562, in order to effect some reform in this subject, Ramus produced at least half a dozen works upon grammar. Three of these were devoted to Latin, and two to Greek, while the sixth treatise dealt with the vernacular.[3] In each of these, according to his principle of 'nature,' he was guided by actual use. He did not set himself up as an arbiter

[1] Ramus even affirms (*Schol. gram.*, II, 15) that *ego amat* seemed as correct to certain Sorbonists as *ego amo*. Probably the racy satire in the *Epistolæ obscurorum virorum*, while an exaggeration, had a real basis of fact. At any rate, a work in four volumes known as *Græcarum institutionum rudimenta*, which was published in Paris by George Mauropædius only five years before the grammatical works of Ramus began to appear, and is still in existence, exhibits the most barbarous blunders in its Latinity.

[2] See pp. 57 f.

[3] His interest in his native language to the extent of producing vernacular treatises on both grammar and dialectic, at a time when, according to Pasquier, it was doubted whether it was "worth while to couch the arts in French," shows his progressive patriotism and modern spirit. He also demanded unceasingly a vernacular translation of the Scriptures, and it is well known that he was ambitious to see his native land build up a genuine national literature.

of speech, like Donatus and Priscian, but judged of the Latin and Greek by means of the classical authors, and of the French by the speech of the people.[1] In the grammar of each language, he adopted a short and easy method according to the definite rules which obtain throughout his texts on the liberal arts,[2] and thus eliminated most of the fallacies, impertinences, and repetitions of the existing grammars. Also, in keeping with his plan, he endeavored to turn his 'explanation' into 'practice' as soon as possible.[3] The form in which the works themselves were written furnished a model of correctness and elegance that had been little known for centuries.

The limitations of space forbid our even outlining the plan employed by Ramus in each of his grammatical treatises, but that used in his works on Latin,[4] the most important language of the times,[5] may be given here as an example of them all. In order to avoid repetition, in keeping with his principle of the 'pri-

[1] *Schol. gram.*, II, 11 ff. See also p. 110.

[2] See pp. 109 ff.

[3] See pp. 114 ff.

[4] *I.e.* the *Grammaticæ Latinæ libri quattuor, Rudimenta grammaticæ*, and his extensive *Scholæ grammaticæ*. See p. 57.

[5] See footnote 3 on p. 122.

macy of the general,'[1] he treats the subject deductively. He begins with the most general statement possible, and defines grammar as 'the art of talking correctly.'[2] He thus establishes a definite and practical goal. Throughout he avoids all extraneous topics, and outlines the subject as clearly as possible. His first large division of grammar is into 'etymology' and 'syntax,'[3] for he scorns any such tautological heads as the 'orthography' of Quintilian, the 'analogy' of Varro, or 'prosody,' which he deals with in rhetoric.[4]

In etymology he begins with a discussion of the letters and pronunciation. In the case of both these subjects Ramus attempted to institute reforms. He recommended the use of the characters *j* and *v* to represent the consonant sounds, that had up to that time been included in *i* and *u* and were subject to confusion with the vowels.[5] They were, in conse-

[1] See p. 112.

[2] *Grammatica est ars bene loquendi.* See *Gram. Lat.*, IV, Preface.

[3] Books I and II of *Grammatica Latina* are devoted to 'etymology'; Books III and IV to 'syntax.' [4] See *Schol. gram.*, II, 10 ff.

[5] His priority in this distinction is conceded by all his contemporaries from Freigius (pp. 23 f.) and Nancel (pp. 30 f.), who enthusiastically praise the step, to Scaliger (*Scaligerana*, p. 288), who considers it foolish and vexatious. See also Ramus himself (*Schol. Gram.*, l. II).

quence, for a long time known as 'the Ramist consonants.' He also made prevalent in the schools an exact and elegant pronunciation, although, as has been pointed out, this cost him a serious struggle with the Sorbonists.[1] Next, he discusses syllables, and their formation and quantity, as well as accent and expression, and the origin and formation of words.

Then he considers the parts of speech, which he again divides into two classes, — words with 'number' and words without 'number.' Under the first head he groups substantives and verbs.[2] Substantives include pronouns and adjectives, as well as nouns, and have, as their distinguishing modifications, gender and case. Instead of the five declensions, employed by Varro and grammars of the present day, Ramus groups his substantives under two

[1] See pp. 62 f. In French he also wished, like Etienne Dolet and other humanistic theorists, to introduce reformed spelling, but this step proved too radical, when the pronunciation of that language has differed so greatly in different sections of the country and from century to century. Even Pasquier (*Lettres*, l. III, 4) disapproves of this reform on the grounds stated above, and Ramus anticipated (*Gram. Lat.*, VII, 56) that these objections would be made.

[2] The first part of Book I is devoted to 'substantives' and the second to 'verbs.'

declensions, (1) that where the substantive has the same number of syllables in all cases, and (2) that where it has a different number. He further divides the 'equal-syllabled' declension, according as *-is* appears in the dative plural (as in the first and second declensions of our present-day Latin grammar), or does not; and the 'unequal-syllabled' declension he groups under two heads, which correspond respectively to our third declension and to our fourth and fifth. While, therefore, he really discriminates four declensions, it seems like a much simpler, easier, and more logical arrangement, and it enables him to treat the irregular nouns with the others.[1] Last of all he deals with the indeclinables, among which he mentions the cardinal numerals.

The modifications of verbs he gives as tense and person. He makes the important modification of moods of little account, showing by a number of examples that there is no clear distinction in their meaning.[2] The three chief tenses — present, past, and future — are explained, first for the finite moods and then for the infinitive. Here also he is able to

[1] In his larger work, *Scholæ grammaticæ*, XIII, he also discusses the irregular adjectives.

[2] See *Schol. gram.*, XIV.

treat irregularities and variations without a separate discussion. He also gives due attention to the gerund and the supine on the one hand, and to the participles on the other, treating the former as substantives, and the latter as verbs, instead of as separate parts of speech. Under their second modification, Ramus divides verbs into personal and impersonal. He does not distinguish the personal verbs, according to their variations, as inchoative, frequentative, and desiderative, since this seems to him to be valueless to the student, but he does divide them into active, passive, and deponent.[1] In the matter of conjugation he makes two classes, according as the future ends in *-bo* or *-am*. As, however, he subdivides both these classes, he practically distinguishes the four conjugations that are usually given now, although here again he does not treat the irregulars by themselves.

The second part of etymology, which deals with words that do not have number, is exceedingly brief. It bears upon the four indeclinable parts of speech, — adverbs, conjunctions, prepositions, and interjections, — but the use of the last two is deferred until syntax is reached.

[1] *Ibid.*, XVI.

Ramus then takes up syntax, which he defines as 'the construction of words,' and deals with it under the main heads of 'agreement' and 'government.' [1] Under both these divisions he again considers words with 'number' and words without 'number.' He groups under words with number the agreement of substantive with substantive, in which adjectives are included, and of verb with substantive. Under the former are given the rules for apposition and attributive, including all irregular cases where the word in apposition or the attribute refers to several substantives. Under the latter come the rules for subject and predicate. In the agreement of words without number, he deals first with adverbs that form the comparative and superlative degrees, and then with conjunctions, according to their place in the sentence. He also mentions 'asyndeton,' or omission of the conjunction, and 'polysyndeton,' or figurative repetition of the conjunction.

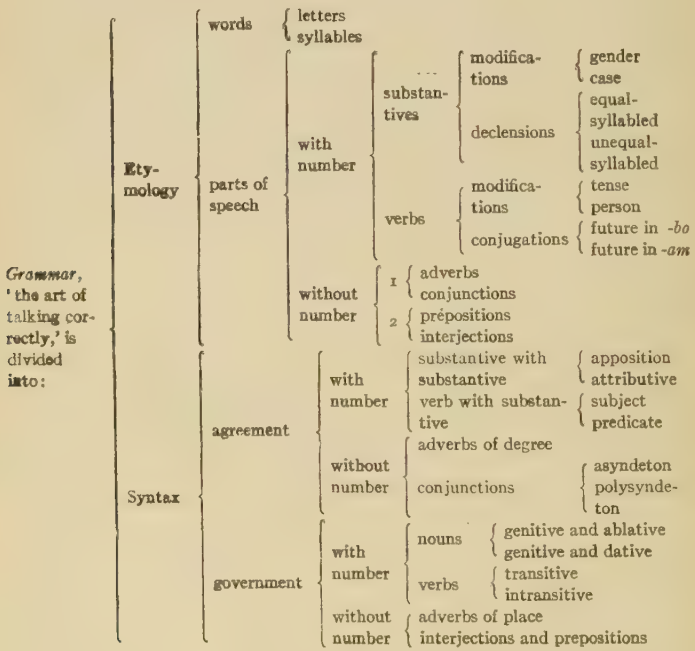
The government of words with number considers nouns and verbs. Under the former come (1) the subjective, objective, and characteristic genitive, and

[1] Book III of the *Grammatica Latina* is mostly taken up with a consideration of *Syntaxis convenientiæ* and Book IV with *syntaxis rectionis*.

the ablative of characteristic, including adjectives in these constructions, and (2) the partitive genitive with comparatives, superlatives, and numerals, the genitive with adjectives of 'plenty and want,' and the dative of 'benefit or injure.' Under verbs are first treated transitive verbs, active and passive, intransitive verbs of 'acquisition' taking the dative, transitive verbs with the double accusative, and verbs of 'plenty and want' with the ablative or genitive. He then discusses the verb governing another verb, including an infinitive as the object of a verb of 'wish' or 'desire,' and a supine in *-um* after verbs of motion. He finally mentions the infinitival construction and the ten impersonal verbs that take the genitive. The government of words without number is very briefly considered. It deals with adverbs of 'place,' which take the genitive, and constructions with interjections and prepositions.

The diagram on the next page may perhaps serve to make clearer the organization of grammar according to Ramus. An examination of the scheme reveals how completely Ramus, in determining the content and arrangement of his *Grammar*, has fulfilled his three principles of 'truth,' 'justice,' and 'wisdom.' He seems to have skillfully avoided all fallacious,

extraneous, and repetitious material. There likewise appears here a new principle of organization, which savors more of a scholastic origin, and of which we shall hear again later. This is his 'dichotomy,' or consistent division of each class into two species.



Like all *schemata*, this principle of division at times plays havoc with the natural order of things, and inevitably brings it about that matters closely

related are sundered in presentation. Moreover, while in etymology this clever scheme covers everything of importance about the parts of speech, in syntax it omits much from their possible constructions. Yet it can easily be seen how much more convenient must have been such a brief and logical classification, and what an advance it marks over the grammars that were in use. It has eliminated most of the philosophical and dialectic ballast that had been slipped into syntactical instruction, and it has struggled more energetically even than the attempts of other humanists to free itself of scholastic influence. It limits itself to grammar, pure and simple, and secures its illustrations from the usage of the best Latin writers. To clarity and definiteness of organization it added brevity and intelligibility of language. While but few directions are given, they are all of immediate use, and the learner is soon led from dry and difficult rules to a vital study of the authors themselves. It must have called forth a new interest in the pupil, and made the work lighter and more rapid. The close connection of this grammar with the humanistic movement, as well as its remarkable success in the schools, is shown by the attempted union of it with the work of Melanchthon that ap-

peared in a *Philippo-Ramian Grammar*,[1] published twenty years after the death of our reformer.

Ramus has also furnished us with some account of the way this subject of grammar should be taught. During the three years to be given to grammar,[2] he seems to have intended that both Latin and Greek should be pursued, but that most emphasis should be given the former subject, and the arrangement in the four books of his *Latin Grammar* should be followed. After acquiring the letters and syllables and securing a little facility in reading and writing Latin, the student was to take up the declensions and conjugations. But he was to be given few rules of syntax, and to learn more through examples than formal grammar. Easy illustrations and selections were to be taken from the *Bucolics* of Vergil and the *Comedies* of Terence, and from the simpler works of Cicero and Homer. The first year was to be given mainly to etymology and to teaching the pupils to express themselves and acquire a vocabulary. The second year these acquisitions were to be strengthened, deepened, and wid-

[1] See Schmid, *Encyclopädie*, IV, p. 931. Cf. the Philippo-Ramists in dialectic, p. 217.

[2] See pp. 118 f.

ened. Considerable practice and more complete mastery of the classical writers were to be afforded. In the third year etymology was to be reviewed, with illustrations furnished by the student himself, and syntax was to be completed. But in this 'explanation' and in 'practice'[1] the knowledge and power of the youth were gradually to be increased. The models analyzed[2] were to be more and more extended, and, while dealing with them, the student was to learn from this usage of the best authors his etymology and syntax, orthography and prosody. Then, after the 'practice' in 'analysis,' the pupil was to take up 'genesis,' or production on his own account.[3] Here, too, there is a gradual increase in difficulty, beginning with mere imitation and later coming to more independent composition.

Ramus seems to have spent much time and effort in elaborating the best methods of acquiring Latin and Greek. He felt that, whereas rhetoric and dialectic were to some extent natural gifts, a knowledge of these dead languages, both because of their intrin-

[1] See pp. 116 f.

[2] An excellent illustration of the way in which this 'analysis' may be carried on is given with the hexameter, *O Melibœe, deus nobis hæc otia fecit*, in the *Scholæ dialecticæ*, VII, 191.

[3] See p. 117.

sic difficulty and their being the key to the other arts, required the greatest industry and the most skilled instruction. Instead of basing his methods upon logic and formal grammar, Ramus hoped to lure the youths into a study of Latin and Greek by having them read the classical authors themselves as soon as possible. In this respect he was not unlike the rest of the humanists, but he seems to have excelled them all in reducing to a minimum the number of years that must be spent in acquiring grammar.

In the reforms he proposed for rhetoric, however, it is obvious that Ramus received more opposition than he did in the matter of grammar.[1] The reason lying back of the storm that arose over his efforts to improve the teaching of rhetoric was that the authority upon which rhetoric was based was not merely that of some medieval writer, like Martianus Capella or Cassiodorus, but of Cicero and Quintilian themselves. Even the humanists, although they were free from the scholastic verbosity and the digressions that appear in most of the textbooks of the times, taught rhetoric according to Cicero and Quintilian, and Melanchthon even intended his *Institutions of*

[1] See pp. 42 ff. Cf. also preface to the *Scholæ rhetoricæ*.

Rhetoric as an introductory book to these authors.[1] But Ramus did not bow down before even such great authorities. While he fully appreciated Cicero and Quintilian, he held that they were not infallible and that their antiquity was not sufficient warrant for the abuses which the current textbooks had wrought in their name. He, accordingly, applied his laws of 'truth,' 'justice,' and 'wisdom' to the content of rhetoric, and rigidly rejected all that had been smuggled into the subject. Rhetoric, he declared, should be an art in itself, and not the exercising ground of another art.[2]

It seemed fallacious to him to combine rhetoric with grammar, as suggested by Quintilian, and he held it confusing to insist, with Cicero, that dialectic, philosophy, ethics, and various other subjects are essential to the orator as such. These matters, while improving to him as a man, have nothing to do with his rhetorical training. For rhetoric it is necessary only to know the rules of the art of speech, so as to use them effectively, in the same way that grammar consists in the use of correct language.

[1] See Messer, *Quintilian als didaktiker* (*Neue Jahrbücher für Philologie und Pädagogik*, 1897, pp. 415 f.).

[2] *Schol. rhet.*, I, pp. 233 ff.

The content of what one is to say must not be confused, as in Cicero, with the outer form.

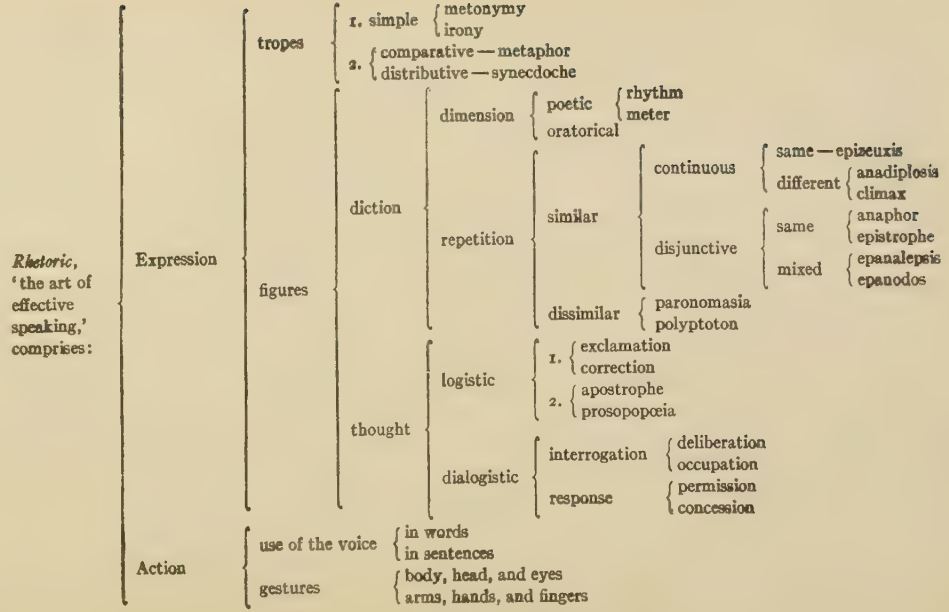
Ramus, therefore, defines rhetoric as 'the art of effective speaking,'[1] and limits its divisions to 'expression' and 'action.' He altogether ignores 'invention' and 'arrangement,' together with 'memory,' which is really a reflection of them, on the ground that these topics belong more properly to logic, even if all five divisions are given by the ancient writers.[2] Expression he defines as the elegant adornment of speech,[3] and he divides it into 'tropes' and 'figures.' The former of these refers to the figurative use of single words. It is subdivided into metonymy, irony, metaphor, and synecdoche, and some of these classes are still further divided. 'Figures' indicate a change of dress in a combination of words, and are of two kinds, — figures of diction and figures of thought. Figures of diction have reference to a change in the outer form, indicated by a turn in the rhythm or meter, and are ordinarily treated under 'prosody,' which, as has been stated,[4] Ramus does not recognize in grammar.

[1] *Rhetorica est ars bene dicendi.*
[2] *Schol. rhet.*, I, p. 237; IX, p. 319.
[3] *Ibid.*, V, pp. 290 f.
[4] See p. 124.

Under this head are enumerated nine figures of speech, of which the best known are paronomasia, climax, and anaphor. Figures of thought imply some movement of the mind expressed in speech, and include apostrophe, personification (*prosopopœia*), rhetorical question, and other means of enlivening a speech and captivating an audience.

His second main topic, 'action,' which deals with suitable delivery, had been valued up to this time, but had not been explicitly taught. With Ramus this subject comprises the use of the voice and gestures. Under the head of vocal control, he discusses how, both in the case of single words and of sentences or combinations of words, expression may be given through proper modulation to the various emotions, such as fear, grief, and sympathy. Under the other division he deals with all the details of effective expression through gestures with the body, head, eyes, arms, hands, and fingers, and with the kind of gesticulation to be avoided.

The rhetoric of Ramus may be outlined as more fully indicated in the analysis on the next page.


Rhetoric, 'the art of effective speaking,' comprises:
Expression
Action
tropes
figures
1. simple
metonymy
irony
2.
comparative — metaphor
distributive — synecdoche
diction
thought
dimension
poetic
rhythm
meter
oratorical
repetition
similar
continuous
same — epizeuxis
different
anadiplosis
climax
disjunctive
same
anaphor
epistrophe
mixed
epanalepsis
epanodos
dissimilar
paronomasia
polyptoton
logistic
1.
exclamation
correction
2.
apostrophe
prosopopœia
dialogistic
interrogation
deliberation
occupation
response
permission
concession
use of the voice
in words
in sentences
gestures
body, head, and eyes
arms, hands, and fingers

Here, as in grammar, we find a clear and careful selection of the subject matter according to his three principles for content and his method of 'dichotomy.' Rhetoric is strictly limited to the outer clothing of speech, and Ramus is absolutely silent about invention, arrangement, memorizing, parts of speech, syntactical construction, and all kindred topics that might seem to overlap dialectic and grammar. His position in abbreviating the material is again most radical. In comparison with the ancient writers and even his humanistic contemporaries, at first sight he gives the impression of scantiness and inadequacy. This is most apparent in the case of Melanchthon, who so closely approached him in grammar,[1] but whose rhetoric held fast to all the traditional matter, especially as presented by Quintilian. The attitude of Ramus, however, is here consistent with his point of view in the other liberal arts, and he defends it on the score of good pedagogy. He is actuated by the principle of not overburdening the youth early in school life with a lot of abstract conceptions that mean little or nothing to him. His preference is to give him only such elements as can easily be grasped and leave all the rest to practice

[1] See pp. 131 f.

through reading. However, as we shall see,[1] it is only by means of dialectic that rhetoric attains to real completion.

The method that Ramus advocated for teaching rhetoric, which was to be carried out in the fourth year of the course, was similar to that of grammar. It consisted in a close combination of theory and practice. In 'explanation,' rules were progressively laid down, and 'practice' in them was afterward attained by the twofold process of 'analysis' and 'genesis.'[2] The pupil obtained some practice by analyzing the authors that had become known during his three years in grammar, but the model for the right use of the voice and gesticulation the teacher had himself to furnish, since a literary passage is necessarily silent on these points. Wherever he could, the instructor quoted from actual speeches, and called attention to the laws of the art. He asked whether this kind of speech, that modulation of the voice, and such and such gestures, were most fitting. Even more than in the other arts, the spoken word was of the utmost importance, and for that reason the teacher had to be a practical orator, as well as

[1] See p. 148.

[2] See pp. 117 and 133.

versed in the precepts of rhetoric.[1] After the 'analysis,' 'genesis' in this subject was secured by working out a theme for delivery, at first according to a definite model and later with greater independence. To guard against superficiality, Ramus advised, as the ancient rhetoricians[2] had, that the oration be written down before it was delivered. While in the year devoted to rhetoric Ramus thought it an error to repeat the material acquired in grammar, he strove to see that the pupil did not lose the fruit of his earlier work. The teacher of rhetoric was to insist that pure speech be observed and thus amalgamate the result of both arts. This method of economy Ramus calls 'combined use,' and energetically defends its advantages against the protests and even the abuse of the conservatives.[3]

But the soul of the system and the true renown of Ramus rest in his reconstruction of dialectic. Said he himself: "If I had to pass judgment upon my own works, I should desire that the monument raised to my memory should commemorate the reform of logic."[4] For it was his improvements in this sub-

[1] *Schol. rhet.*, XVIII, 381.
[2] *Schol. dial.*, XX, 603.
[3] See pp. 159 and 165.
[4] *Dialecticæ libri duo*, Preface.

ject that started the reformation that Ramus made in all the other liberal arts and served as his foundation for their organization. It gave his system and his texts an honorable position up to the eighteenth century, and has always constituted his most enduring title to the esteem of philosophers, scholars, and educators. The success of these reforms was won only after a long and stubborn fight, since dialectic had dominated all the medieval fields of knowledge and its grip upon the academic world was practically identical with that of Aristotle. For three centuries the cultural centers had been offering instruction in the *Organon* enlarged by the medieval commentaries, and had mixed its positions in with grammar, rhetoric, and metaphysics. Dialectic and other subjects had in consequence become a mere formalism, empty, dry, and much too difficult for youthful minds. The pupils became lost in the labyrinths. No effort was made by dialectic instruction to find truth or to prepare for life, but the end and aim was to prepare for school disputations. The humanists had tried hard to overcome this barren condition of logic, and, before the time of Ramus, Valla had written *Dialectic Disputations*, Agricola had produced his work *On the Institutes of Dialectic*, and Vives had is-

sued his three books *On the Transmission of Learning*. Although Paris remained faithful to the scholastic dialectic, and the theological faculty in particular opposed with all its might any sort of innovation, these efforts of the humanists had paved the way for independence of thought and the assertion of common sense. It was, however, the more vigorous cultivation of the field by Ramus that was largely the cause for the germination of the seed which had been sown.

The dialectic reform of Ramus falls naturally under the two heads which he himself distinguishes. These relate to the destructive or 'refutative' side of his work, in which he makes an examination of the current dialectic and refutes the errors that injure accuracy and proper arrangement in the art; and to the constructive or 'demonstrative' side, where he makes a dogmatic exposition of the art of thinking. The former phase of his work appears in its most extreme form in the *Animadversions upon Aristotle*. As has been shown,[1] he is altogether too severe with Aristotle, failing utterly to see the merit of his work, and accusing him of obscurity, confusion, and contradiction, and even

[1] See pp. 30 f.

of puerility and ineptitude. To excuse this vehemence, we must recall the dogmatism of the times, the stupidity and fanaticism of the defenders of Aristotle, and the intolerable yoke with which they were endeavoring to burden all intelligence and love of truth, science, and progress. But these ebullitions of his youthful audacity were afterward somewhat cooled. In later editions of the *Animadversions* he was more moderate, and in his *Studies on Dialectic* and the works that grew out of his contest with Schegk he even shows a great admiration for Aristotle and professes to be a better Peripatetic than his adversaries.

This milder tone is also shown in his borrowing certain detached principles from Aristotle to shape his own works. While Ramus never accepted the system of Aristotle as a whole, we have seen[1] that he at least obtained the laws by which he selected his content in all studies, directly or indirectly, from a treatise of that philosopher. These principles are consequently applied in the 'demonstrative' or expository side of his dialectic, which appears in a succession of publications at different periods.[2] The

[1] See pp. 110 ff.

[2] E.g., *Dialecticæ Partitiones* or *Institutiones*, *Dialectique*, *Dialecticæ libri duo*, and *Scholæ in liberales artes*.

scholastic works on dialectic in general use brought into their subject matter parts that belonged rather to other arts, such as grammar, rhetoric, and ethics, but, subject to his three laws, Ramus confined his material strictly to the art of thinking.

This discipline, he claimed, should be constituted as nature teaches it, without regard to the prejudices or opinions of men. It should be determined according to our experience and observation of reasoning in daily life, for the rules of thought should be formulated after the fashion in which our ordinary common sense solves problems. We should, he states, thoroughly investigate how men use their reason.[1] The way of discovering this method of nature is given at length in an early work:—

"Wherefore to understand the functioning of reason, observe among the thousands of men those most distinguished for their natural ability and sagacity and suppose they have to give their advice in the discussion of an important matter. Their reasoning ought to give you an image of the nature of reason, even as a faithful mirror. Examine, then, what those advisers, through whom nature reveals

[1] Cf. *Vera logicæ artis descriptio proficisci debet a naturalis rationis et usus observatione* (*Schol. dial.*, XX, 941).

herself, wish to do. First, if I mistake not, they will search silently in their minds for every possible reason, and will invent every possible argument by which to exhort you to undertake what is contemplated or to turn you from it. Then, when they have found satisfactory arguments, they will express their thought, not at random, but in order and methodically; not content with demonstrating each separate point elegantly and forcefully, they will embrace the question as a whole, descending from the most general ideas to the individual and particular cases falling under them. If this is their procedure in a single discussion, there is the greater argument for their following it when they study the nature of reasoning in its entirety, as did the first philosophers, who had no artificial logic at all. Hence at all times that an occasion arises for exercising our reason, nature invites our minds to a twofold effort: on the one hand, greater activity and more penetration for solving the problem; and on the other more calm reflection for examining and weighing that solution and properly arranging its various parts. Herein we recognize with certainty the action of nature from which science should never depart, but should follow religiously, for it will have fulfilled

its purpose only when it has reproduced the wisdom of nature. Science ought, therefore, to study the lessons that are innate in select minds; and then, when it has collected them with care, it should in turn transmit them in their most natural order, and upon them as a model should formulate the rules for those who desire to reason well. Thus dialectic should, as it were, first be the pupil of nature, but should later become her schoolmistress, for nature is by no means so energetic and strong that she cannot gain an advantage through understanding herself and recognizing her functions, nor yet so feeble and languishing that she cannot, with the help of this art, acquire greater power and intensity."[1]

Hence Ramus would base dialectic upon actual experience and usage. As grammar and rhetoric were to be founded upon the practice of those who wrote and spoke well, dialectic is to take its principles and rules from the procedure of those best fitted to reason; namely, the wise.[2] His very practical dialec-

[1] *Dialecticæ partitiones,* fol. 3, 4; *Scholæ dialecticæ,* IV, pp. 146 ff.

[2] After this, we can better understand the significance of the term 'utilitarian,' with which he was frequently taunted. See p. 57.

tic,[1] therefore, is more the art of persuasion and exposition than of the discovery of truth. With him the subject leaned toward rhetoric, and could better be learned, he held, by observing Cicero than by studying the canons of the *Organon*.[2] At the outset of his treatises, he defines dialectic as 'the art of discussing well,'[3] and from the two methods we have just seen that he discerned in the reasoning of the wise, it is divided into 'invention' and 'arrangement.'[4] The former division of the subject, which he defines as that of 'inventing the arguments,'[5] is concerned with the separate parts of which the subject is composed. The latter, defined as 'the suitable arrangement of the things invented,'[6] deals with the combination and classification of these parts in the completed presentation.

[1] See pp. 154 f. [2] Hence Prantl calls it 'Ciceronian-rhetorical.'

[3] *Dialectica est ars bene disserendi* is the opening of his Latin treatises.

[4] *Inventio* and *judicium* (cf. Cicero) or *dispositio*. *Dial. libri duo*, Book I, Chap. II; *Dialectique*, p. 4. Here again his 'dichotomy' is in evidence. These are the main divisions, it will be noted, that are usually assigned to rhetoric, but which Ramus discarded from that subject. See p. 136.

[5] *Pars de inveniendis argumentis* or *doctrina cogitandi et inveniendi argumenti.*

[6] *Apta rerum inventarum collocatio* or *pars de disponendis argumentis ad judicandum.*

'Invention' is separated into two main groups of arguments, — 'artificial,' which are demonstrated, and 'inartificial,' which are assumed.[1] Under these heads, Ramus arranges all the chief forms of argument into which human thought falls, and illustrates them with examples from the classical poets and orators. Of the artificial arguments the first four are based on (1) causes, which are to be distinguished as 'efficient,' 'material,' 'formal,' and 'final';[2] (2) effects; (3) 'subjects' or presuppositions,[3] and (4) adjuncts.[4] These all come under the head of agreeing,[5] but there are also disagreeing [6] arguments; among which are included (5) 'different' and 'opposed.' Besides these five groups, which are all simple, there are (6) compound arguments. While these groups are 'primary,' there are also 'secondary'

[1] *Argumentum est artificiale aut inartificiale. Artificiale, quod ex se arguit.*

[2] These classes of causes are borrowed from Aristotle.

[3] The word used is *subjecta* (Aristotle's ὑποκείμενα). Ramus thus explains it: *subjectum est, cui aliquid conjungitur. Anima est subjectum scientiæ, ignorantiæ, virtutis, vitii; quia hæc præter essentiam accedunt.*

[4] *Adjunctum est, cui aliquid subjicitur.*

[5] *Consentaneum est quod consentit cum re quam arguit.*

[6] *Dissentanea* is used here. Like *consentanea*, it is borrowed from Cicero and indicates again the leaning of his dialectic toward rhetoric.

arguments. The latter are distinguished as (7) qualitative,[1] which relate to names rather than things and may be connotative and denotative, (8) distributive, or (9) definitive. The second main division of the classes of arguments, 'inartificial' or (10) assumed,[2] embraces 'divine' and 'human' testimonies that have been inherited, and these may be further divided, the one as it comes from oracles or prophecies, and the other from actual laws or from the sanction of proverbs.

The second book treats the second part of dialectic, — 'arrangement.' Here also is a twofold division, — the 'axiom' or proposition,[3] and the 'dianoia' or deduction.[4] Deduction is itself divided into syllogism and 'method.' There several divisions of the propositions are suggested, but it is sufficient to note here its 'quality' as affirmative or negative, and its 'quantity' as general or special. The syllogism consists in deriving a conclusion from a 'proposition'

[1] *Notatio* (Aristotle's σύμβολον or σύζυγον) *est nominis interpretatio.*

[2] These categories for reducing the terms of thought to ten chief classes were borrowed from Aristotle.

[3] *Axioma est dispositio argumenti cum argumento, qua esse aliquid aut non esse judicatur. Latine, enunciatum dicitur.*

[4] *Dianoia est cum aliud ex alio deducitur.*

and an 'assumption,' or a major and minor premise. It includes two classes, — the 'simple' or categorical and the 'conjunctive' or conditional, the latter of which is divided into hypothetical and disjunctive. The categorical syllogism, which consists in a judgment derived from two simple propositions, is divided according to quantity and quality into fourteen 'modes.' These correspond to those of the first three 'figures' in Aristotle, as Ramus rejects the fourth figure, with its five modes, as invalid. The hypothetical and disjunctive syllogisms, so named from the nature of their premises, have each two modes, one of which leads to positive conclusions and the other to negative. Ramus also explains the meaning of several other forms of the syllogism, — enthymeme, induction, example, dilemma, and sorites, through which false conclusions are derived. To the enthymeme and the sorites he grants a certain validity, but the syllogisms cited, he declares in closing, are 'the golden rule' by which the good, just, true, useful, and their opposites can be judged.

'Method,' the other form of deduction, is defined as "the arrangement of a variety of arguments so that the first in importance is placed first, the second next,

the third in the third place, and so on in order." This process is divided into the method of 'learning' and that of 'sagacity.' There is apparently no difference in their origin, nature, and purpose, but they represent one and the same method in two fields and compose simply a twofold phase of one process. The method of 'learning' is strongly scientific, and follows the laws of logic, going from definitions and general principles to the distribution and special arrangement of parts. Just as this method is used in the liberal arts, 'sagacity' is the corresponding form among poets, orators, and historians. In the latter case the method is not in logical form, but is thoroughly natural and comes simply from the application of reason and wisdom. The chapters [1] in which this whole subject is treated are regarded by Ramus as the most important part of his dialectic works. In one place he says: —

"But 'method,' both in the form of 'learning' and of 'sagacity,' is the sovereign light of reason. In this not only have the other animals nothing in common with men, as they may have in the 'proposition,' but even men differ very widely among them-

[1] *Dialecticæ libri duo*, Book II, Chaps. XVII and XVIII; *Dialectique*, pp. 119 ff.

selves in the qualification. For, however much they may all naturally share in the syllogistic faculty, the number of those who study how to use it well is very small, and of that small number there are still fewer who know how to arrange and judge according to good 'method.' By as much as man surpasses the beasts in the syllogism, may he himself excel other men through 'method,' and the divinity of man is reflected in no part of reason so fully as in the sum of that universal method of judgment."[1]

Evidently, Ramus holds, the way taken in wise deliberation is from general to particular, and the reader especially meets this 'method' in literature, since the author necessarily struggles to be clear and develop his material in proper sequence. If 'method' be neglected in either science or practical life, confusion ensues. Since this method forms a clear arrangement of material, it assists a natural development of the pupil's memory, and, in consequence, the second book closes with a chapter on this mental function. In this Ramus introduced the first rules on memory that ever appeared in a work on the art of thinking, but they were little developed here.

An idea of the treatment of dialectic by Ramus may

[1] *Dialectique*, p. 135.

be gained from the abbreviated analysis on the next page. It can easily be seen that the great contributions of Ramus to the study of dialectic were brevity, simplicity, and clearness. As a corresponding failing, his system has been supposed to be somewhat superficial. But logic with him was not the science of the normative laws of human knowledge. He held it to be simply the practical art of debating a question, and whatever subject matter is not needed for his purpose, he rejects from his treatise. He declines to consider any of the fundamental ontological or epistemological problems that are often thought to be preliminary to logic. He even refuses to use the word 'concept' (*notio*), since it seems to him too philosophic, and simply speaks of 'arguments.' Logic for him deals not with the discovery of truth so much as with exposition and persuasion, and he is inclined to make dialectic lean toward rhetoric.[1] This, however, grew out of his desire to produce a practical and useful dialectic, as opposed to the formal

[1] This accounts for the criticisms of some of his contemporaries, who declared that he was another Erasistratus and an ignoramus, and that he wished to teach his pupils to fly without wings. See Schegk, *Hyperaspistes ad epistolam P. Rami*, pp. 4 ff.; Ursinus, *Bedenken ob Rami Dialectica in Schulen einzuführen* (Heidelberg, 1586).

Didactic, 'the art of discussing well,' is divided into:
Invention
artificial
primary
simple
agreeing
absolute
relative
disagreeing
different
opposite
compound
quantity
equal
unequal
quality
similar
dissimilar
1. qualitative
connotative
denotative
2. distributive
partitive
dividing
definitive
perfect
imperfect or descriptive
secondary
inartificial or 'testimonies'
divine
oracular
prophetic
human
legal
proverbial
antecedent
consequent
Arrangement or 'judgment'
1. parts
'axiomatic' (proposition)
'affections' (quality)
affirmative
negative
1.
2.
true
false
contingent
necessary
2
'species' (quantity)
simple
general
special
particular
peculiar
compound
congregated
copulative
connective
segregated
discrete
disjunctive
dianoetic (deduction)
syllogism
parts
antecedent
'proposition' (major premise)
'consequent' (conclusion)
'assumption' (minor premise)
species
'simple' (categorical)
contracted
explained
'compound' (conditional)
hypothetical
disjunctive
'method'
learning
sagacity
causes
efficient
material
formal
final
effects
presuppositions
adjuncts

definitions, minute analyses, and barren rules of the scholastic treatises, and such a simplification and clarity in presenting the technique of the art of thinking was of much value to education. Moreover, his conception of dialectic would tend to foster free thought and inquiry, and harmonize the rules of thinking with nature. To be sure, he sought these principles of thought in the works of the great classical writers, rather than in his own reflection, and so may have somewhat aided the formalized humanism eventually to establish a new yoke upon intellectual progress, but in his time he must have been a great factor in freeing education from the tyranny of a scholastic conception of Aristotle and in breaking with the barbarism of the Middle Ages. Through his dialectic he dared to tackle the philosophic positions accepted unquestioningly for several centuries and to resist the absurd distinctions of the schoolmen. He made it clear that it was time to depart from the tutelage of Aristotle, and to this extent he is still contributing to the advancement of the science of logic. For, as has well been said,[1] "he alone dared to say openly and without reserve what others only lisped; he alone realized what they scarcely

[1] Brucker, *Hist. crit. philos.*, Per. III, pars II, l. II, c. 1, § 2.

dared to wish, in his preparation of a new dialectic."

Ramus deals also with the method of teaching dialectic, which is to occupy the pupils during the fifth year of the course. As in grammar and rhetoric, he insisted upon 'practice' as of more importance even than 'explanation.' His opponents, he maintained, were teaching only 'dead logic,' and were using the precepts of the art for a game of ball over which to shout and quarrel, and he declared that their sophistic disputations over dialectic theses were not only fruitless, but injurious. Just as the content was to follow 'nature,' 'practice' should follow the mastery of content.[1] The teacher should make an 'explanation' of the logical rules, as contained in 'invention' and 'arrangement,' and the pupil should learn and discuss them, but the matter could not stop there. The knowledge of the classes of arguments and the forms of judgment must be zealously applied, if it is to be of value.

The material here also, as in the preceding arts, is to be furnished by the classical writers, especially Cicero and Demosthenes. With his conception of

[1] *Dial. partit.*, fol. 1, *ars igitur naturam sibi propositam semper habeat, exercitatio artem.*

dialectic, he naturally turns to the orators for illustrations, but he is no longer satisfied with mere excerpts. To understand their argumentation, whole speeches are laid before the student. As elsewhere, in 'practice' 'analysis' comes first; the arguments are picked out and classified, and the cases of 'syllogism' and 'method' have their 'figures' and 'modes' determined. Then 'practice' in 'genesis,' or production, must be afforded, during which the student writes first a close imitation of the passage, and later makes a more independent production.[1] Ramus furnishes several illustrations of his entire method. For example, we may take the speech of Cicero, *For Milo*. In the 'analysis,' he would first have the defense read; then the student should examine all the arguments adduced and place them according to the ten classes; and finally determine the 'premises,' 'conclusions,' and 'methods,' according to which the arguments were arranged. In the 'genesis,' what Cicero urged in behalf of Milo is applied in a similar theme. For example, a nobleman is to be defended in an indictment for murder, and the pupil has to seek and arrange the arguments and conclusions in a fashion like that of Cicero.

[1] See pp. 117, 133, and 140.

Gradually, however, he should strive not to imitate the great Roman orator slavishly, but to become as independent as possible and even to surpass him. Throughout this training in dialectic, while, in keeping with the law of 'justice,' there is no repetition of grammar and rhetoric, no part of the instruction of the previous four years is to be neglected, and, according to his principle of 'combined use,'[1] every exercise must be couched in correct grammar and ornate language.

[1] See p. 141.

CHAPTER VII

Content and Method of the Quadrivium

As we have indicated, Ramus was not satisfied to limit his reforms to the lower trinity of liberal arts. He soon turned his attention also to the 'esoteric' studies, or *quadrivium*, which in his day still included the mathematical subjects of arithmetic and geometry, together with music and astronomy as minor fields.[1] Music had fallen into the background and he never attempted to revive it. Astronomy he included to some extent under his wider term of 'physics.'

To mathematics, however, Ramus gave great attention, and the results of his labors here are worthy of more detailed consideration than could be given when dealing with the account of his life. These subjects have been so immensely expanded and improved since his day that a mere inspection of his pro-

[1] See p. 120. *Rami actiones duæ in senatu, pro regia mathematicæ professionis cathedra*, published in two editions in 1566, and extant also in *Collectaneæ præfationes, epistolæ, orationes*, p. 533.

ductions will give but a very inadequate notion of his actual contribution. Up to the last quarter of the fifteenth century, the texts on mathematics were limited to little more than those of the ancients and the wretched condensations[1] made during the Middle Ages, and while just before the close of the century a few editions of Euclid had been published at humanistic centers in Italy,[2] little had been done with the subject. The humanists who might have collected and translated these treatises were largely absorbed in the development of linguistic study.[3] At the opening of the sixteenth century conditions began to improve ; a number of earnest scholars came into the field,[4] and several textbooks on mathematics appeared in Germany, Italy, and France. But while several prominent mathematicians were developed at Paris before Ramus, he must still be

[1] Paciuolo's work (1494) and Valla's edition (1498) were hardly of this order, and there were a number of excellent modern works on arithmetic published before 1501, such as those of Borghi and Calandri.

[2] Such as the 1482 edition of Ratdolt in Venice, the 1491 edition at Vincentia, and Valla's edition of 1498.

[3] Even Sturm entirely ignored the subject in his curriculum.

[4] Faber Stapulensis, Clichtoveus, Bouvelles, Budæus, Jean Fernel, Oronce Finée, and Jacques Peletier were among those to advance the subject before the work of Ramus began.

accounted a pioneer. Before his death he had become one of the best-known mathematicians that France possessed, and his reputation endured until the time of Descartes. His works, too, compare favorably with most of the others[1] produced during the entire century. As late as 1625, his arithmetic was still in good standing, and it was, together with his geometry and posthumous algebra, republished and commented upon in France, Germany, Holland, and throughout academic Europe. Moreover, his lectures on the subject at the College of France brought into existence a host of brilliant young mathematicians, who became the means of stimulating an interest and of greatly advancing the work during the next half century, and at his death he left most of his fortune to found a chair of mathematics at the College of France. Hence his achievements, crude as they were, entitle him to an honorable place in the history of mathematics.

The special interest that Ramus showed in mathematics was probably due not only to his appreciation of the subject as a means of mental discipline and as a key to many practical pursuits, but equally to its definiteness and the possibility of illustrating thereby

[1] Viète's incomparable work would have to be excepted.

the three rules he had laid down for determining the content of a subject.[1] He held that the laws of 'justice' and 'wisdom' had been violated, and that too much complexity and obscurity appeared in the current works on mathematics, and even in Aristotle. Ramus declares that the great philosopher mingled much of the subject matter of arithmetic with that of geometry, and treated geometry before arithmetic, although this forced him to repeat certain general conceptions, such as 'size,' under several heads. Most of these difficulties for mathematics could be avoided, he insists, by sharply separating the fields of the subjects and by treating all general conceptions first.[2]

Ramus declares the subject matter of arithmetic to be that 'of proper calculation.'[3] He divides it as 'simple' and 'comparative' or compound, and devotes a book to each class. "The simple arithmetic considers the nature of numbers singly," while "comparative arithmetic treats the comparison of numbers in quantity and quality." The former includes no-

[1] *Schol. Math., præf.*, in *Collect. præf.*, p. 166.

[2] *Schol. Math.*, I, pp. 2 ff.

[3] *Arithmeticæ est doctrina bene numerandi.* This seems to be the only one of the arts where *ars* is not used, but this is probably accidental, as is shown by *Dialectica*, lib. I, cap. III.

tation, the four fundamental operations, fractions, and improper numbers; the latter deals with arithmetical and geometrical proportion, the rule of three ('golden rule'), alligation, equations, and allied topics. Geometry he calls 'the art of measuring properly.' The subject falls naturally into plane and solid, but the division into twenty-seven books treats the subject from the standpoint of separate topics rather than of groups. His treatise on plane geometry covers lines, angles, and such figures as triangles, quadrangles, polygons, parallelograms, squares, and circles, together with their relations and subdivisions; that on solid geometry covers the properties and subdivisions of pyramids, prisms, cubes, spheres, cones, and cylinders.

The diagrams on the following pages, giving more detail, show how carefully Ramus observed his fundamental principles in the content of mathematics, and how both arithmetic and geometry could be divided according to his favorite method of 'dichotomy.' While by his clear presentation he may have sacrificed something of the rigorous discipline that has been claimed by some as the chief value in the study of mathematics, he felt clearness to be of most importance and ruthlessly eliminated all extraor-

dinary complexity. The order and simplicity of his arrangement are admirable, and his demonstrations are clear and easily remembered. We are further indebted to him as perhaps the first to put the problems of Euclid in the form of propositions and theorems, which has proven such a boon for the memory.

The method of teaching which Ramus advocated for mathematics was quite as effective as that in the other subjects, and was based on the same principles. After the rules had been explained as simply as possible, the pupil's knowledge was put in practice. Here again he stressed the process of 'analysis' and 'genesis.' The examples were to be borrowed from the mathematical writings of the ancients, chiefly Euclid, or formed by the teacher himself. In geometry the figures were first to be drawn by the instructor and then imitated by the student.[1] Again, in order that the work of the *trivium* might not be forgotten, he advised that discussions be held upon mathematical theses, and that the arguments and diction used be held to a high standard of efficiency.

We may now turn to the other quadrivial subject upon which Ramus wrote. Until his time, 'physics,'

[1] See *Præf. math.*, in the *Collect. præf.*, p. 166.

Arithmetic, 'the art of proper calculation,' is divided into:
Simple
integers
notation
numeration
prime
conjoined
addition
subtraction
multiplication
division
fractions
notation and reduction
numeration
1.
2.
unequal
equal
prime
composite
Comparative
quantity
equality
inequality
differentia
ratio
quality or proportion
arithmetical
geometrical
disjunctive
continuous
disjunctive
continuous
simple
complex
simple
complex
direct
reciprocal
composition
continuation
association
alligation
least common
numbers
equation

Geometry: 'the art of measuring properly': includes:
Relations of lines
of one line
straight
oblique
perpendicular
parallel
of two lines
'affections' (relations)
angles
right
oblique
obtuse
acute
figures
parts
center
perimeter
radius
diameter
altitude
relations
of one
ordinate
primate
ratio
equal perimeters
prime proportions
similitude
of two
Bounded by lines
'species' (classes)
sur-face
lines
intersection
perpendicularity
parallelism
proportion
plane
figures
rectilinear
triangular
right
oblique
triangulated
quadrangle
obtuse
acute
parallelogram
trapezium
polygon
rectangular
oblique-angular
Square
oblong
rhombus
rhomboid
curved
spherical
diverse
plane
pyramid
pyramidal
prism
pentaedral
hexaedral
parallelopipedon
trapezium
cube
oblong
solid
polyhedron
curved
sphere
diverse
cone
cylinder

like mathematics, played a decidedly subordinate part in the colleges of the university. And neither in his day nor for a long time afterward was it generally dignified with careful organization or methodical instruction. Even the humanists, since natural science lay quite outside their sphere of interest, did little or nothing to disturb the authority of Aristotle in this field,[1] although they tried to disrupt the traditional scholastic methods and the superstitions of astrology. Ramus undertook to introduce the same system into the content and method of physics as he had in the case of the other liberal arts. He vigorously attacked both the schoolmen and Aristotle, and criticized the eight books of the latter's work on natural science[2] in the same number of *Studies in Physics*.[3] He claimed that this treatise of the great philosopher secured its material more from logic than from nature, and that Aristotle indulged in too many speculations, which have nothing to do with the field of physics. With some exaggeration, he says: —

"If one should by means of his senses and reason investigate heaven and earth and all that therein is,

[1] Witness Melanchthon's *Institutiones physicæ*.
[2] Φυσικὴ Ἀκρόασις. [3] *Scholæ physicæ*.

as a physicist ought to do, and then compare his results with the *Physics* of Aristotle, he would find in that work no observation of anything in nature, but only sophisms, theoretical speculations, and unsupported assertions." [1]

The proper method, he held, is quite contrary to Aristotle's. One should develop the subject of physics by avoiding philosophical digressions and searching with his senses through visible nature, where lies the genuine and useful material, which needs only to be observed, tested, and arranged methodically for instruction.

However, this invective against senseless and pernicious abstractions and the suggestion of a real investigation of nature must not mislead us into supposing that Ramus himself held to induction in natural science. In building up his physics he did not resort directly to nature for his material, but, similarly to his method with the literary and argumentative arts, he took his facts largely from the *Physics* of Aristotle, the *Natural History* of Pliny, and the *Georgics* of Vergil. And the order of arrangement is as deductive as it is in his geometry. His *Studies in Physics* tell us that the "aim of

[1] *Præfat. physica,* in the *Collectan. præfat.,* p. 69.

genuine natural science is to study first the heavens, then the meteors, then the minerals, vegetables, animals, and finally man." Physics deals with nature, which is an 'essence constant in itself.'[1] 'God' and 'intelligence' (*mens*) are assigned as the chief principles underlying nature, but are not further mentioned, since he rigidly eschews metaphysical discussions, and he quickly turns to the material world. After a very brief chapter upon forms of matter in motion,—birth, death, growth, decay, and the like, he takes up astronomy and deals with the heavenly bodies, zones, poles, zodiac, chronology, and temperature. The heavenly bodies are discussed under the first element,—'fire.' The three remaining elements include all natural phenomena. His chapter on 'air' deals with clouds, thunder and lightning, hail, winds, and rains. Then from the phenomena of the air he goes to 'water,' under which he considers oceans, rivers, springs, and wells. Finally, he deals with the 'earth,' including the stones and metals in its bosom, and the plants, animals, and men that thrive upon it. The outline on page 172, which is taken from a

[1] *Natura est essentia per se constans.*

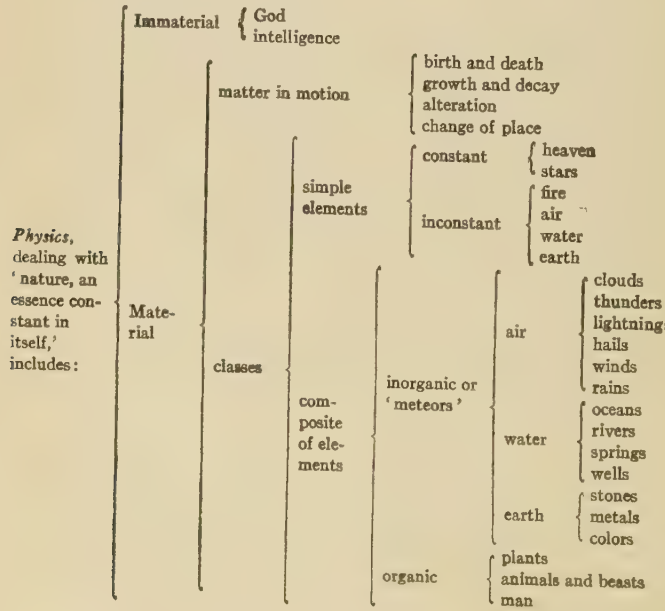
summary of his lectures by one of his pupils,[1] will give some idea of the classification of the subject.

Thus in selecting the subject matter for his physics Ramus treats the supersensible cursorily and devotes himself almost exclusively to visible objects. He purposely rejects hypotheses and speculations. Astronomy, meteorology, and agriculture occupy the bulk of his work, but considerable attention is also given to botanical, zoölogical, and anthropological material. Very clearly, however, he has investigated none of these topics for himself, but has relied upon the records of the classical authors. His great contribution rests in his substantial and objective treatment, free from all the philosophic theories of the times, and in his excellent organization and clear arrangement, which passes down from the heavenly bodies and the phenomena of the air to the earth with its organic and inorganic features, and realizes its aim and end in man.

This work in physics, which was planned for the seventh and final year of the course, was to be taught like the other arts, by 'practice,' including 'analysis' and 'genesis,' as well as by 'explanation.' Unfor-

[1] *Professio regia* (pp. 285 ff.), published by Freigius four years after the death of Ramus.

tunately, the real spirit of science and induction was as yet so little understood that the student gained this exercise through an interpretation of the descriptions of various classical authors rather than by actual observation, and the study became verbal rather than scientific. But, compared with the texts of the time, the physics of Ramus must have presented an admirable body of well-arranged material and must have proved more interesting and easier to learn.



CHAPTER VIII

Higher and Professional Studies

When Ramus retired from active teaching in 1571, it was understood that, in continuing his reform of the liberal arts, he would include treatises on ethics and politics, which were coming to be added in the higher curriculum of the *quadrivium*.[1] It is even stated that he had prepared a work upon the subject of ethics, which awaited only a final revision, when death cut short his literary activities.[2] If this treatise was ever published or even produced, however, it has now been lost, and we have to depend upon other works of his for our knowledge of his moral teachings. Happily his references to the subject elsewhere are so extensive that it is not difficult to reconstruct his general positions. His polemics are developed in occasional outbursts against Aristotelianism in his orations and more systematically

[1] See p. 120.

[2] Referred to in his *Oratio de professione liberalium artium.* (Paris, 1563.) See p. 104.

in his *Studies in Metaphysics*. His constructive attitude in pure ethics is found in the treatise *On the Customs of the Ancient Gauls*, although this was intended to be more of an historical work than a treatise on morals, and his positions as a Christian ethicist are developed in the second and third books of his posthumous *Commentaries on the Christian Religion*.

The ethical attitude of Ramus in many places is purely anti-Aristotelian and destructive. He fails somewhat to understand Aristotle, but as an ardent Christian he evidently holds it incumbent upon him to combat the paganism of that philosopher. Like most theologians until a very recent day, he proves a naïve dualist. He cannot conceive of ethics without the direct action of God upon the human soul. Hence he inveighs against the scholastic instruction in Aristotle's *Nicomachean Ethics*, "where the boy learns a mass of impieties: for example, that the principle and ideals of 'the good' are innate in every man, that all the virtues are within his own power, that he acquires them by means of nature, art, and labor, and that for this work, so grand and so sublime, man has need of neither the aid nor the coöperation of God. Nothing about providence; not a word

about divine justice; in short, since, in the eyes of Aristotle, souls are mortal, the happiness of man is reduced to this perishable life." "Such," he exclaims, "is the philosophy out of which we build the foundation of our religion!" [1] In fact, to the ingenuous mind of Ramus, Aristotle's very idea of God savors of atheism. In another connection he declares at length: —

"God, according to Aristotle, is an eternal essence, which knows not matter, magnitude, parts, division, passion, or change, and leads a perfect and completely happy existence. Even if this be granted, what a further mass of errors and impieties! God is an animal; there are as many gods as there are celestial globes. God has no real power whatsoever; he would not know how to act or move, had he not possessed those characteristics from all eternity. God is the first cause of the world, but without wishing or even knowing it. He thinks only of himself and disdains all the rest. He is neither 'creator' nor 'providence.' He moves the world eternally even as the loadstone moves iron. He has neither love, benevolence, nor charity. What, then, is such

[1] *Pro philosophica Parisiensis Academiæ disciplina oratio.* See *Collectaneæ præfationes, epistolæ, orationes*, pp. 337 f.

an atheistic conception of God save a Titanic struggle against him?" [1]

Such is the vehemence with which Ramus ordinarily attacks the foundations of Aristotle's ethics, but at times he shows that the ancient philosopher had anticipated the true Christian doctrine and accepts his positions, even at the expense of certain usages of the Church. For example, after showing that Aristotle completely rejected the gods made in the image of man, he remarks that "this philosopher, pagan though he was, has therein shown himself more pious than a great many Christians, who place in their temples visible and gross images of the Trinity, of which even the mind can scarcely conceive." [2] Occasionally he goes so far as to claim to rely absolutely upon reason, and "not even to employ any argument drawn from the Holy Scriptures, nor appeal to the authority of Christ and Moses." [3] His commentary on the institutions and customs of the ancient Gauls, which is outlined on page 179, treats ethics from the standpoint of the four

[1] *Schol. met.*, l. XIV, at the close.

[2] *Ibid.*, l. XII, cap. 8. Cf. *Schol. phys.*, l. VIII, toward the end.

[3] *Schol. phys.*, l. VIII, at the close.

cardinal virtues and almost in the terms of Plato and Cicero.

As a rule, however, Ramus does not desire any such complete emancipation. In the treatment of ethics in his *Commentaries on the Christian Religion* he is a true Protestant Christian, and bases his solution of ethical problems upon the Scriptures, especially the decalogue and the Lord's prayer. Yet he never hesitates to refer to examples from antiquity in defense of his position, as well as to contrast them with his conception of Christian ethics. As instances of this, we may note his citation of the Lacedæmonian and primitive Roman mandate to 'honor thy father and mother,' of Cicero's and Menander's prohibition of bearing 'false witness,' and of a variety of pagan warnings against 'covetous' action and even thought. He felt, of course, that the ancient world was more in harmony with the later five commandments, which deal rather with man's social relations and not so much with his reconciliation with God, whereas the Christian world holds that primarily in God, and not in ourselves, rests the motive for human struggles and human happiness.[1] He maintains at the start, therefore, that the fundamental principle

[1] *Commentaria de religione Christiana*, II, 2–10.

of ethics is man's obedience to God and his desire to submit to his will in all things.[1] The means of bringing God near and unifying him with man is 'faith' in the Father's benefits to his church or kingdom upon earth.

Then, through illustrations from the Sermon on the Mount and quotations from other parts of the New Testament, Ramus enlarges, deepens, and brings out the inner meaning of each one of the commandments. He converts all these negative statements into positive commands, and gives to the Old Testament form a New Testament content, thus producing from a code of statutes a system of Christian ethics.[2] In carrying this out, he states that all Christian duties and virtues can be embraced under "piety and charity as the sum and substance of the law. Charity is both the cause and effect of the law. It is filled with faith, hope, and sympathy, and is void of malice, pride, hatred, and injustice. It is the one and all-comprehensive virtue."[3] From this root, then, spring all the Christian virtues and all good works. Content is accordingly given to these general

[1] *Commentaria de religione Christiana*, I, 2, 10 and I, 1, 6 f.
[2] *Ibid.*, II, 7, 229; II, 10, 179; and II, 11, 251.
[3] *Ibid.*, II, 13, 202.

In his *Book on the Customs of the Ancient Gauls*, virtue is divided into four classes:

- **Temperance**
  - abstinence
  - moderation in speech
  - frugality
  - play
  - sharing of goods and possessions
  - boyish, — for the toleration of labors and dangers
- **Courage**
  - military
    - kinds
      - land
        - unsheltered
          - in line of battle
          - ambush
        - fortified
      - naval
    - effects
      - conquered races
      - colonies
- **Prudence**
  - intelligence
  - studies
    - authors
    - arts and philosophy
      - instruments
        - grammar
        - rhetoric
        - logic
      - divisions
        - mathematics
        - physics
        - theology
- **Justice**
  - classes of men
  - assemblies and councils

principles in his treatment of all human relations.[1] *Marriage,* which is concerned in the seventh commandment, Ramus outlines historically, beginning with God's sanction of the relation in the case of Adam and Eve, and citing Christ's approval by his presence at the wedding feast in Cana and by the symbolic marriage of Christ with the Church. He further holds that marriage should take place only between members of the Church. He specifies that it should be forbidden between Christians and pagans and within certain degrees of consanguinity, and cites instances in the Bible where violations of this principle have been punished. The Old Testament polygamy cannot be taken as the norm, for the relation was in its institution monogamous. Celibacy, however, is not holier than marriage, and he condemns the requirement in the case of monks, nuns, and secular priests. Divorce should be granted only on the grounds of adultery. The rule for the *relation of parents and children* Ramus finds in the fifth commandment, and more specific guidance he gathers from the Epistle to the Ephesians and the works of various classical writers. He gives as a warning for

[1] This forms the substance of the second book of his *Commentaries.*

the violation of this law the punishments meted out to Ham and to Absalom. In all social, civic, and political life, Ramus stresses the duty of *truth*. He will not sanction 'white lies,' concealment of the truth by physicians, rhetorical turns of the orator, or deceptions in diplomacy. If the truth must be concealed, the proper way to achieve this is by silence or by such an answer as will produce silence on the part of the questioner, as in the case of Jesus with the Pharisees. *Oaths* are not unconditionally forbidden, for Abraham, David, Paul, and other biblical models swore in God's name when the circumstances called for such action. In general, asseveration of this sort should be permitted when made concerning the truth, but should not be done wantonly in cursing or in supporting falsehood through perjury. For this latter grievous sin God has often punished men severely. Ramus ranks *tithe-taking* with *usury*, and brings them both under the eighth commandment, — not to steal. One may, however, increase his possessions by all honorable means. Like the reformers in general, this French moralist was very strict in his ideas of *amusements*. Dancing, for example, he would permit among young maidens by themselves, as in the case of the sisters of Moses and their com-

panions, but dancing with a member of the opposite sex, in his opinion, was too often associated with immorality. *Obedience to magistrates* was especially counseled by Ramus, as implied in the fifth commandment, but, on the other hand, magistrates must live up to their duties. *War* and *capital punishment*, he maintains, are somewhat limited in their extent and character by the sixth commandment, although they may be justified in the case of murder, unjust attacks, or defense of one's native land.

After the detailed discussion of 'obedience' he takes up the Christian duty of 'prayer.' [1] This attitude is an evidence of piety, and the other great proof of faith. It is the gift of God himself, since it is he that kindles the zeal for it in us, and his fatherly relation through Christ is justification for it in the faithful soul. "Christ is our mouthpiece, through whom we talk to the Father; our eye, through whom we see him; our right hand, through whom we make offerings to him." [2] Hence it is the Father himself who inspires us to prayer, and gives us in his son the pledge of being heard. Prayer, therefore, is the ex-

[1] To this subject he devotes the third book of his *Commentaries*, just as the second was concerned with 'obedience to the divine law.'

[2] *Ibid.*, III, 2, 208 ff.

pression and proof of Christian life, and in it penitence is revealed. As the new life is expressed in prayer, we are strengthened and advanced in the fight against our evil inclinations. It is, therefore, necessary to renew prayer daily and ask forgiveness for our sins, since continual and manifold temptations are constantly arising both from our misfortunes and our prosperity.[1] He further makes a gradation in sins from the standpoint of heinousness and worthiness of punishment. The most unforgivable breach is the sin against the Holy Ghost, as in the case of the Pharisees that attributed the miracles of Jesus to demons.[2]

The *Lord's prayer* Ramus holds to be a model for all conditions of life, and the treatise on prayer is clearly a detailed paraphrase and explanation of its several petitions. It is not necessary to enter further into his discussion, but it is of interest to note the ingenious comparison that he makes between the ten commandments and the various petitions of the Lord's prayer. The second half of the prayer is shown to correspond in general to the second half of the decalogue. This analogy is not so much one that is strained after in an effort to attract and hold the

[1] *Ibid.*, III, 8, 241 f. [2] *Ibid.*, III, 9.

attention of the reader, as it is intended to convince him that the Christian life, in fulfilling the law, manifests itself as in harmony with the benefits for which we are bidden to ask.[1]

It can thus be seen that the Ramian ethics, like all treatises until the last half century, was essentially dogmatic, and shades off into what may be more properly called 'theology.' As a matter of fact, Ramus includes both subjects in a single work, his *Four Books of Commentaries on the Christian Religion.*[2] The two middle books, which have been discussed, are really ethical and deal with 'obedience' and 'prayer,' but the first and last, upon 'faith' and 'the sacraments' respectively, would come rather under the head of theology. Yet, as compared with the treatises of the times, especially those of the orthodox Catholic authorities, Ramus is not guided by dogmatism. He strives, like most of the reformed theologians, to deliver the subject from all the idle

[1] *Ibid.*, III, 10, 249.

[2] This treatise was begun in Switzerland and Germany in 1568–1569, and the outline laid before the best known Protestant theologians. It was completed upon the return of Ramus to Paris, but was not published until four years after his death, when his pupil, Banosius, got out an edition at Frankfurt. See pp. 95 and 96 f.

questions and various subtleties with which the scholastics had embarrassed it. He was disgusted with the unfruitful learning, formal attitude, and dissociation with life in the theology of the times, and struggled to advocate upright living rather than mere doctrine. He wished to make the Scriptures the supreme rule of faith, and continually expressed a wish for exact translations in both Latin and the vernacular,[1] but he stressed the knowledge of revealed truths less than actually putting them into effect.

His practical point of view is first embodied in his definition of theology as 'the science of living well.'[2] He further specifies that "the final purpose of the science is not mere acquaintance with matters relating to it, but use and practice," and that by 'well living' is meant "living in harmony and conformity with God, the source of all good things." This attitude in theology cannot but remind us again of the reproach of being 'utilitarian' made by his opponents,[3] and of his definitions in the various

[1] Illustrations of this desire were found in his *Advice to the King on the Reformation of the University* and his letter to the Cardinal of Lorraine in 1570. See pp. 84 and 103.

[2] *Comm. de relig. Christ.*, I, 1, 6. Cf. I, 25, 89.

[3] See p. 57.

liberal arts.[1] Ramus himself says: "In the same way the liberal arts teach by their precepts to speak correctly, to make an effective speech, to reason well, to calculate well, and to measure well, respectively." Hence, since theology should be of practical value, he holds that it must not be filled with fine technicalities, but should be intelligible and popular. "As I venerate and honor the mystery of sacred and divine things, so I desire all instruction relating to these matters to be free from the rocks and thorns of scholastic problems, and clear and distinct in the whole course of its exposition and treatment." [2] The Scriptures hold a rich and manifold content of divine revelation, prophecy, history, poetry, and song, which may be made of infinite value to the masses. This body of simple and inestimable truth was praised most highly by the Christian Fathers, but had been ignored and rejected by the scholastics. "Wherefore," Ramus declares, "I think that this recent darkness should be cast away as far as possible and the ancient light brought back." [3]

[1] See pp. 124, 136, 148, 163, and 164.

[2] *Comm. de. Relig. Christ.*, I, preface, p. 1.

[3] *Ibid.*, I, preface, pp. 1 f. Cf. *ibid.*, IV, 18, 343: "Let us dismiss the profane logomachies and empty talk; let us speak the words of the Holy Scriptures, let us use the language of the Holy

In order to restore this enlightenment, he proposes a twofold method. In the first place, the text he would make should be illustrated with suitable passages from the Holy Scriptures. "We must act in divine matters," says he, "not otherwise than according to the divine writings." [1] The Old Testament must be used as well as the New. Together they form the rule for piety and offer the forgiveness of sins through Christ. In the Old, the covenant is promised; in the New, it is granted. Both contain a revelation of God and have substantially the same content, although one is prophetic and veiled, and the other fulfilled and clear.[2] Secondly, Ramus would add to the text and sacred examples, passages taken from the greatest classical poets, orators, and historians. By this secular spicing of the religious

Spirit. For that is the truest doctor of wisdom and the most renowned orator of eloquence, and it uses words that can be understood by us, — clear, significant, and suitable. For that will be to divide the truth rightly. Then let us not supplant divine wisdom and language with sophisms and folly." Similar is his continual suggestion of a return to the 'golden age' of primitive Christianity. See *ibid.*, I, 6, 25; II, 9, 165; IV, 17, 338; IV, 18, 342 f.; IV, 19, 344, and 346 f.

[1] *Ibid.*, I, preface, p. 5.

[2] See his comparison of the decalogue with the Lord's prayer, pp. 183 f.

materials he believes that the attention of the reader can be attracted and stimulated, "not that any authority or approbation for religion can be derived from it, but that it may be clear Christian theology is not so abstruse or so remote from the human senses that it cannot illumine all people with a certain natural light, and so its very humanity may invite and allure men to engage in divine studies with eagerness." [1] This use of classical authors by Ramus, which is not intended merely as a rhetorical illustration of Christian truth, but a general attempt to transmit its natural and supernatural revelation, is one of the most interesting and characteristic features of his theology. He constantly undertook to show the harmony of the loftiest representatives of classical antiquity with Christian principles, to feel and point out in the pre-Christian world prophecies of Christianity, and to trace them up to the appearance of the Gospel, not only from Moses and Isaiah, but also from Plato and the academies of ancient philosophy. In this he illustrates the complete reconciliation of the Northern Renaissance with the Reformation, and reveals himself a typical humanist and a Protestant theologian. While he agrees in the

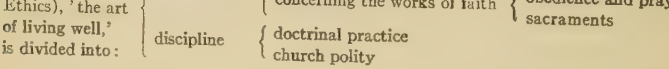
[1] *Comm. de relig. Christ.*, preface, p. 2.

essentials with the evangelical principles of the other reformers, in his position toward classical antiquity he represents a peculiar breadth of view.

Upon this basis Ramus organizes the material of his theology. He holds that obscurity and confusion in this field have been due in no small measure to the fact that there are as many methods of dividing and arranging the subject as there are theologians. Each one feels fully entitled to his own viewpoint, instead of seeing that, as in any other science, there is only one correct method. He insists that there is a definite arrangement based upon general logical principles, and puts into effect his three laws of content [1] and his classification by 'dichotomy.' [2] In accordance with this method, he divides the science into 'doctrine' and 'discipline.' The subdivisions of doctrine, in turn, concern 'faith' and 'works,' and the classes of 'works' are 'obedience' and 'prayer' on the one hand, and 'sacraments' on the other. 'Obedience' and 'prayer,' which he deals with in books two and three respectively,[3] relate more closely to his ethics and are treated under that head,[4] while 'sacraments' belongs with 'faith' to his dog-

[1] See pp. 110 ff. [2] See pp. 130, 139, 150, and 164.
[3] See pp. 178 ff. [4] See p. 177.

matics, and is treated in the fourth book. His second main division of 'discipline' falls into the subjects of 'doctrinal practice' and 'church polity.' This part of theology is not treated in his *Commentaries*, but we have other ways of knowing the position of Ramus in the matter.[1] Meanwhile, the general outline of both the 'ethics' and the 'theology' proper included in his *Commentaries*, is shown in the following diagram.



The first book of the *Commentaries* consists in an interpretation, somewhat scientific, but mostly popular, of the Apostles' Creed. It is partly a paraphrase and partly an explanation of the articles, and is largely in keeping with Catholic doctrine. The first important theme is that of God's existence, characteristics, and works.[2] God is an eternal, immortal, and beneficent spirit, and is incomprehensible to man save through his works.[3] First the treatise deals with his existence and nature, and then with creation, provi-

[1] See pp. 99 ff.

[2] See Chaps. 3–8.

[3] This last is the reformed doctrine that was later known as *via causalitatis*.

dence, and predestination, but between the chapters on creation and providence is inserted one upon the 'fall of man.' The Ramian conception of God is 'trinitarian,' although it is not treated as a dogma until toward the close of the book, when the doctrine of the Holy Ghost is discussed.[1] Upon creation and providence Ramus presents nothing worthy of note; he simply makes a collection of biblical and classical quotations without going closely into the kernel of these questions. His explanation of the 'fall of man' and the consequences thereof is also superficial and rather brief. Our first parents, he holds, were forgetful of the wonderful benefits of the Creator and wished to be his equal, and thus threw away the great gifts they might otherwise have enjoyed forever. In place of an immortal body they thus obtained a mortal one subject to a thousand miseries, and, through the contagion of the original sin, they acquired a propensity to every sin, and polluted their entire posterity.

Providence he treats more fully later on under 'predestination.'[2] In comparison with the dogma of Calvin or even Zwingli, Ramus presents a very mild conception of 'predestination.' He viewed the

[1] *I.e.*, I, 19, 72 ff. [2] I, 6, 24. Cf. also II, 1, 27.

problem from an ethical standpoint, while they regarded it purely in a logical light. Hence he can speak of it as "that act of God, whereby out of his free mercy he selects some for everlasting salvation and out of his justice relegates others to eternal perdition." [1] This position he supports by a number of Old and New Testament quotations, which furnish proof of both election and damnation, and more especially by the approval of Augustine in his *Letter to Vincent* and in his treatise *On Predestination.* Nevertheless, while he rejects every evidence of universal salvation that appears in the Bible, he apparently does so to be consistent with his Calvinistic confession and does not show at all the conviction, zeal, and almost grewsome satisfaction that Calvin found in this resultant of his logic.[2]

The second article of the creed, which concerns the person and work of Christ, Ramus interprets mainly in conformity with Catholic doctrine, as determined by the Councils of Nicæa and Chalcedon. Now and then, however, characteristics of the Protestant point of view appear, and while he uses the traditional formulations, he clothes them with

[1] I, 8, 28.

[2] See especially I, 8, 32.

[3] See Chaps. 9–18.

biblical, rather than scholastic, concepts and terms. Another peculiarity of his treatment appears in the way he deals with the twofold nature of Christ. His humanity, he holds, is shown in his birth, sufferings, death, and burial, while his deity is revealed in his resurrection. In this way doctrines quite separate in orthodox dogmatics are connected. He also adds to the description in the creed an account of the human life of Christ, from birth to the passion,[1] although he renders it largely nugatory by maintaining that Christ reveals his real self only in his divinity.[2]

But the especial contribution of Ramus is his treatment of the earthly mission of Christ, which, as we have noted, is closely related to and throws light upon, his person. His work is not brought under a definite scheme, nor subsumed under such concepts as 'reconciliation' or 'redemption,' but the author merely relates the history of Christ's passion. He comments upon the Jewish and Roman methods of capital punishment, discusses the time of the crucifixion, collects typical references from the Old Testament and pagan analogies from the classical writers, and concludes with a most graphic description of the

[1] I, II, 43 f. [2] I, II, 45.

mourning of Nature over the death of the Savior.[1] Similarly detailed descriptions are made of the resurrection. He gives a minute account of the descent into hell,[2] and the ascent into heaven.[3] This final abode of the righteous he depicts as a definite place,—'the highest part of the universe,'[4] and 'the seating at the right hand of God'[5] is also locally conceived. The 'final judgment' is likewise described. While the whole narration is written in highly impassioned and rhetorical language, it is only now and then that dogmatism is displayed.[6]

Next Ramus presents the third article of the creed, and interprets the doctrines of the Holy Spirit, the church universal, the communion of saints, the forgiveness of sins, the resurrection of the body, and the life everlasting.[7] He first cites typical passages where the Godhead and the personality of the Holy Ghost are described, and then names the specific attributes and activities of the final member of the Trinity. In his general attitude toward trinitarianism, he appeals to the traditions and usages of

[1] I, 12, 46 ff. [2] I, 14, 55. [3] I, 16, 62 f.
[4] I, 16, 63. [5] I, 17, 66.
[6] Occasional examples are found, as in I, 11, 46; I, 12, 50; and I, 14, 57 f.
[7] Chaps. 19–25.

the church and to the Athanasian Creed, and is very strongly orthodox.[1] He also retains unmodified the doctrine of the church as the visible evidence of the invisible kingdom of God, — 'perceived by faith, although apparent to the eye of none.'[2] The characteristics of the church or kingdom, however, are developed according to the Apostles' Creed, and are but little more than a paraphrase of the words[3] used there. 'Holiness' here below is only approximate and imperfect, though real, since it is mediated through faith in Christ. Likewise, the Christian Church is 'Catholic' or universal. Where the Old Testament 'congregation of God' referred to a definite land and a peculiar people, Christianity aims to include all peoples and times, for it is a common bond in the Holy Ghost through the Gospel.[4] It is thus the means of a 'communion of saints' or the redeemed. Further, since salvation is not self-made, but is granted by the grace of God through mediation upon the part of Christ, it comes about by the 'forgiveness of sins.'[5]

But his conception of the 'resurrection of the body'

[1] I, 19, 69 ff. [2] I, 21, 79.
[3] *I.e.*, 'holy Catholic (or universal) Church.'
[4] I, 22, 77 ff. [5] I, 23, 83.

Ramus takes from several of the old Church Fathers rather than from the Scriptures themselves. He interprets the risen body as not one of flesh, but of a heavenly nature, and implies that the Bible is using the language of symbolism. The 'life everlasting,' which he deals with in the last chapter of the book,[1] is considered less as a specifically Christian hope of the future than as a general belief in our immortal nature. The eternity of punishment in hell is emphasized, but no purgatory is mentioned.

The fourth book, discussing the 'sacraments,' is, as we should expect, much more dogmatic even than the first. It is more definite in its facts and more precise in expression, and more nearly approaches the scholastic methods from which Ramus had broken. It is more strictly theological than his semi-popular treatment of the three articles of Christian faith. He begins with a general definition of the sacraments taken from the Old and New Testaments. He makes the sacraments analogous to military oaths, and inclines more toward Zwingli than Luther in his positions on the subject. "A sacrament," he says, "is an act of public faith instituted by God for commemorating the death of Christ and participating in its

[1] I, 25.

fruitage through an objective sign and solemn rite of the Church." [1] He especially emphasizes the human side of the ceremony by further explaining: —

"On the part of God it is a sign of divine grace and salvation; on our part it is a sign of confession and duty, by which we publicly swear allegiance to the name and authority of God, and we profess a divine state of mutual charity among ourselves, a church, and a religion, so that by visible signs we make and swear to invisible and spiritual treaties." [2]

The most complete illustrations of this general conception of a sacrament are baptism and holy communion.[3] "Baptism is the sacrament by which, when once cleansed by water in the name of the Father, Son, and Holy Spirit, we are initiated into a profession of being cleansed of our sins by the blood of Christ." [4] "The Lord's supper is the sacrament by which through the gracious acts of God we use the bread and wine for professing that we have been raised up into eternal life through the crucified body of Christ and his blood which was spilled for us." [5] In this conception of the eucharist, which he defends

[1] IV, 1, 257.
[2] IV, 5–7.
[3] IV, 3, 264 f.
[4] IV, 5, 271.
[5] IV, 8, 284.

at length, he diverges further from the orthodox views of 'transubstantiation' than did either Calvin or Luther. He evidently comes closer to the Zwinglian idea of a 'commemoration' than to the mysticism of Calvin, which, on the one hand, teaches a condescension of the divine powers of Christ into the communicant through the Holy Spirit, and, on the other, affirms an elevation of the communicant to heaven. Nor is Luther's 'real presence' of Christ, in rejection of which he makes seven counts,[1] or any other form of 'consubstantiation,' acceptable to Ramus.

Even a cursory examination of the organization of his 'theology' reveals the same procedure, with its merits and defects, that Ramus was found to employ in his formulation of the studies in the *trivium* and *quadrivium*. The presentation is clear, simple, and logical, but at times it seems forced upon the material and does not altogether grow out of the nature of the discussion. Subjects somewhat cognate are occasionally sundered by a too rigid pursuance of the *schema*. The doctrine of 'justification by faith,'[2] for example, is separated from 'remission of sins,'[3] and is explained later, while 'free will' is quite irrelevantly discussed in connection with this latter topic.

[1] See Chaps. 11–14. [2] II, 1, 96. [3] I, 23, 83.

Yet the work is most remarkable for its clarity and its composition and style. It exhibits a wide range of scholarship restrained by a strong and simple logic. The argumentation on the sacraments is a marvel of strength and simplicity, when we consider the theology of the times. Also especially praiseworthy is the combination of active piety and broad charity with which the work rings. Most touching is that last chapter,[1] in which he makes his eloquent appeal for Christian unity, — an exhortation that had its hearing years after the author's voice was hushed by martyrdom.

The second part of the Ramian theology is not given in his *Commentaries*, although the division is recognized there. His general position on several matters of doctrinal practice and church polity, however, appear in his various controversies, and we have reliable sources for judging of the attitude and opinions of Ramus in these matters.[2] On the very question of the eucharist mentioned above, he had a

[1] IV, 19.

[2] There are extant three unpublished letters on these subjects to his friend, the Protestant theologian, Bullinger, whom he had consulted in shaping his views. See Lobstein, *Ramus als Theologe*, pp. 63 f., and Waddington, *Ramus, sa vie, ses écrits, et ses opinions*, pp. 239–246.

public contest with Beza, who, of course, held to the Calvinistic interpretation. The use of the words 'substance' and 'substantial' he recognized as an effort to hold partially to tradition, and he characterized both terms as 'foolish and misleading.' [1]

With regard to polity, it is obvious that Ramus advocated a more democratic government of the church than that practiced by the Calvinists. In open opposition to Beza, he urged that the Calvinistic churches should grant more powers to the membership, and he objected strenuously to the increasing domination of the elders and the exclusion of the deacons from the administration, whereby the church was becoming decidedly oligarchic. These enlarged rights and privileges for the elders had been voted by the synod of the church held at La Rochelle in April, 1571, under the moderatorship of Beza. Propositions offered by Ramus as a protest against this aristocratic innovation were adopted in March, 1572, at the provincial synod of Ile-de-France, but were rejected at the national synod of Nîmes two months later. This assembly, like that at La Rochelle, was dominated by the influence of Beza, and

[1] *Haec utraque inanis et falsa videatur.* See Waddington, *op. cit.*, p. 434.

decreed [1] that the "discipline of our church should remain in the future, as it has always been observed and practiced up to this day, without making the least change or innovation, since it is founded upon the word of God." And Beza in triumphant bigotry declares: —

"That pseudo-dialectician, whom several scholars of old surnamed 'the *branch* [2] of Mars,' stirred up a very serious discussion concerning the whole government of the church, which, he claimed, ought to be democratic, not aristocratic, leaving to the council of elders only the proposal of legislation. Wherefore, the synod at Nîmes, in which I participated, upon my advice condemned that view, which is most absurd and pernicious." [3]

We find that Beza returned to the subject later,[4] and seemed to fear that Ramus would not submit tamely, but would yet stir up dissension. But at this time the reformer's enemies had accumulated in sufficient numbers to prevent further disturbance of the theological *strata*, Catholic or Calvinist, and

[1] See Aymon, *Actes ecclésiastiques et civiles de tous les synodes* (La Haye, 1710), pp. 112 ff.

[2] A pun on the name, Ramus.

[3] *Theological Letters* (Geneva, 1573), No. 67.

[4] See *ibid.*, No. 68.

within a few months the courageous theologian was no longer able to attempt any change in ecclesiastical 'discipline.'

Had Ramus lived longer, there is reason to believe that he would also have written upon the other professional subjects of medicine and law. We have already seen in his *Advice on the Reformation of the University*[1] that he had decided views upon these subjects, and that his emphasis upon civil law, which had been entirely abandoned at Paris, and upon laboratory and field work in medicine was decidedly modern. While Ramus himself never studied medicine, and had read only a few works of Galen,[2] he recommended a logical arrangement of this subject, which he probably hoped to have similar to that he had adopted for the liberal arts and theology. This would undoubtedly have furnished a much clearer, more intelligible, and more humane presentation than that in vogue for medicine. Similarly, his knowledge of law was confined to passages in legal authorities that he had read to secure light upon the speeches of Cicero, but he ardently wished to see the subject reorganized, and had definite views as to the right method, which

[1] See p. 83 f.

[2] See *Schol. math.*, l. II, and Nancel, *Rami vita*, p. 34.

would probably have been similar to that used elsewhere. Witness his appeal to the noted men in this line at the time. "Among so many jurists," he asks rhetorically, "is there to be no one who will undertake to clear up and simplify this chaos?" [1] His exhortation was afterward effective, and such logical principles as his came to be generally utilized in the organizing of law.

Hence within the purview of this remarkable reformer fall all the theology and education of the times. He wished to rid Christianity of all scholastic and medieval agglomerations and bring it back to the simple belief and informal organization of the primitive days, and, in his efforts to accomplish this, did not hesitate to oppose both Mother Church and her Calvinistic daughter. His reconstruction of the matter and method of education is quite as worthy of note, and eventually resulted in a new presentation of all studies in the secondary and higher curricula.

[1] *Schol. math.*, l. II, near the end.

CHAPTER IX

Value, Spread, and Influence of Ramism

Such were the contributions made by Ramus to the progress of civilization and education. The impulse out of which all these improvements developed was his persistent struggle against the servile attachment to Aristotle and scholasticism that had enthralled the sixteenth century. It was because the implications of the medieval conception of the Aristotelian logic underlay all the life and studies of the times that he found it necessary to oppose the Stagirite so vehemently, and that, in turn, his breach aroused so much passion and hostility. Hence the most fundamental and far-reaching contribution of Ramus was his aid to the emancipation of society from the bondage to medieval authority, and to the enfranchisement of truth and free investigation. Through him were secured some latitude in the field of knowledge and freedom from the ecclesiastical domination of reason.

In turning his back upon the scholastic wisdom,

Ramus substituted for it a return to antiquity. In this he reveals his temperamental sympathy with northern humanism, and, although his Protestant inclinations did not materialize at first, the Reformation attitude was innate in him and seems implied in his logic. He has all the merits and faults of humanism, and seems to have been largely influenced by the treatises of Agricola, Vives, Sturm, and Melanchthon. However, while he was, like all leaders of opinion, somewhat a product of the times, more than any other of his day he crystallized and shaped the vague and inchoate sentiments that were seeking expression. No other humanist was so extreme in his opposition to medieval and scholastic thought, or carried his principles into such radical execution. While building somewhat upon his predecessors and the advanced thought of the day, the reforms suggested for the organization, content, and method of education are found to have been quite reconstructed, systematized, and given their greatest advancement through him.

This humanistic attitude of Ramus prepares us to find in him something of that overemphasis upon Latin and neglect of the vernacular that afterward plunged education into almost as fixed a mold

as scholasticism. He takes even his educational principles and material mostly from the classical writers, although he is decidedly eclectic in his use of their thought. The basis of his reforms he borrows from Quintilian and Aristotle. From the one he secures his principle of making each *art* follow *nature* and of following the presentation of the art by *practice*,[1] and from the other his laws of *truth*, *justice*, and *wisdom* in arranging the content of the liberal arts.[2] Likewise, he took most of his material in grammar from the usage of classical writers, although he did not recognize the absolute authority of Varro, Donatus, and Priscian; his rhetoric he borrowed largely from Cicero and Quintilian; in dialectic he used not only Cicero, but even the despised Aristotle; while Euclid was his guide in mathematics; and Pliny, Vergil, and Aristotle furnished most of the 'physics' he held should be taken from nature.

Yet Ramus is unwilling to follow any author slavishly. He selects, in accordance with reason, the material that seems to be natural. While the classical writers are the sources of his subject matter, he deals with each one critically and refuses to acknowledge authority. He estimates the value even of those

[1] See pp. 116 ff. [2] See pp. 110 ff.

from whom he selects according to his fixed principles of subject matter. Whatever portion of a treatise does not conform to these laws he either reorganizes or entirely rejects. He eliminates from all the arts the foreign and false, he closely distinguishes the boundaries of each science, and he rearranges the content so that no repetitions occur. Hence we have seen that much which had the sanction of antiquity or the indorsement of medieval traditions was dropped from his reconstruction of the liberal arts and from his ethical and biblical formulation of theology. The result was a great shortening of the course of study and a remarkable improvement over the faults of the scholastic texts and instruction, and even the shortcomings of the classical works. This economy of time and effort, and increase in clearness, simplicity, and interest may have tended a little to dilute the material and separate related topics, and certainly subjected Ramus to the criticism of both the Parisian and German humanists on the ground of opening the door to superficiality and a half-baked education. But his reformation in the content of the curriculum was, as a whole, decidedly in the interest of social progress and improved pedagogy.

Of even more educational value was his develop-

ment of method. He always advocates gradual progress from the easy to the difficult, and fuses theory with practice in all studies. He does not heap up rules for the sake of 'discipline' and thus make them an end in themselves, but recognizes that they are but the means to the true end of use. This is secured by practice in which there is a steady advance in independence for the student. Moreover, while the various liberal arts are taught in different years of the course, in each one, by means of his 'combined use,' practice is supposed to be afforded in all those that have been previously presented.

In all this advance in material and procedure, while no definite aim is formulated, Ramus seems to have been guided by that underlying principle which is, after all, in every age the real purpose of education. His system implies an effort to produce 'social efficiency.' The content of this ideal must, of course, differ from age to age, as the society in which the pupil lives develops and changes, and the school practice is, from the force of inertia and habit, liable to be left behind. The true reformer is he who strives, whether consciously or not, to present a reconstruction of theory that will meet the needs of the times, and to insist upon its incorporation and realization in the

existing educational institutions. Ramus fully meets those tests. His reorganization of matter and reformulation of method were intended to meet the demands of the day for effective expression in writing and speaking, and for leadership through oratory and a mastery of Latin. If his methods of attaining these ends, especially in such 'real' studies as mathematics and physics, now seem to us verbal and formal, we must not be guilty of the historical fallacy through neglecting to image the situation as it was then, nor forget the constant emphasis that Ramus laid upon 'use,' even to the extent of being pilloried for utilitarianism. His struggles to make these reforms effective and embody them in educational organization are witnessed not only in his specific orations upon this subject, but in practically every treatise or work that he wrote. Together with his constant effort to strike the shackles from the search for truth and to point the way toward a broader ethics and religion, these strivings of a lifetime mark Ramus as a great reformer, — intellectual, social, religious, and educational.

The ideas of Ramus spread rapidly throughout Europe. They were vigorously debated for a century or more by partisans and adversaries in all the

different countries, and made a tremendous impression upon philosophic and educational thought. While eventually new doctrines replaced those of the French reformer, the intellectual situation was permanently modified because of his teachings. Ramism had perhaps less influence in France than in Germany, but even there it found many ardent advocates. In depicting his life, we have touched upon much of the discussion and strife that were aroused over his teachings in his native land.[1] The animus of the conservatives who defended Aristotle was evident and does not need repetition. At various French universities the Ramistic principles were soon presented by various professors and met with wide adoption. At Paris the physicians, Fernel and De Gorris, and a large number in the faculty of arts supported the new doctrines; at Rheims, a former colleague of Ramus, the Greek scholar, Alexandre, continued the teachings he had acquired at Presles; while Jean Bellon, a learned jurist, took up the cudgels at Toulouse. The principles spread and met with a host of followers, who were ready to risk an indictment for heresy and the wrath of the Holy League.[2] Even after the development of Cartesian-

[1] See pp. 31 ff. and 43 ff. [2] See p. 13.

ism, we find the philosophy of Ramus frequently discussed, and as late as 1651 it was the occasion of a serious controversy at Paris between a well-known historian and a professor in the College of France on the one hand and certain Jesuit scholars on the other.[1] While, with the complete rejection of all attempts at ecclesiastical reform and the domination of the Jesuits in the seventeenth century, the educational reformation also vanished, Ramism left a definite impression upon French thought. In the suggestions of this sixteenth-century reformer must to some extent be sought the spiritual ancestry of Descartes, the Port Royalists, Gassendi, and Voltaire.

In Spain and Portugal, Ramism was not well received. Yet the celebrated grammarian, Sanchez, taught the liberal arts according to the Ramian principles, and left definite traces of the new system in the University of Salamanca, the most flourishing in Spain. The philosophy of Ramus was bitterly opposed, too, in all the universities of Italy, except Bologna, and most of its partisans felt obliged to withdraw from the country sooner or later. The most distinguished of all these was Simoni, who defended

[1] See Cossart, *Orationes et carmina*, pp. 73 and 104.

Ramism against the attacks of Carpentarius and Schegk. But we might perhaps consider as continuing the spirit of Ramism a number of later Italian writers, including the unfortunate Bruno, who distinguished themselves by their attack upon Aristotle's philosophy. The Ramistic philosophy appeared also in Denmark, thanks to Krag, who taught it zealously and defended it in his writings. In the Low Countries it was early brought to Douai by Nancel, the loyal pupil of Ramus, and throughout these lands it found an untiring interpreter in Snellius. Nor could the new philosophy be kept out of the universities of Holland, and the authorities at Leyden were forced to admit it upon equal terms with the Aristotelian. In England it made little progress at Oxford, which was devoted to Aristotle, but Cambridge proved more hospitable. At the latter place, through the influence of Ascham and Sidney, who were friendly to Ramism, it was largely adopted. When it was attacked by the scholastic and mystic, Everard Digby, it was warmly defended by William Temple, Sr., who also helped to give it vogue. The discussion that arose may have been the means of starting the opposition of Bacon to all deductive systems, especially as Digby was probably his tutor. However that may be, Ramism

survived and flourished. As late as 1672, the University of Cambridge published the logic of Ramus with a commentary by Amesius, and the same year a more distinguished honor was done the system through the appearance of a Latin treatise by the poet Milton upon *A More Complete Organization of the Art of Logic Arranged according to the System of Ramus.*[1] An even better footing was afforded Ramism in Scotland, since the regent of the country, James Stuart, Count of Murray, had been a pupil of Ramus. Through George Buchanan, another friend, it is probable that the Ramistic philosophy was established at the University of St. Andrews.

It was in Germany and Switzerland, however, that the principles of Ramus received the greatest attention and exerted the widest influence. Despite the opposition of Beza, the new philosophy attracted a number of Genevan scholars, among whom was the martyr Arminius. Basel, Zürich, Bern, Lausanne, and other cities of Switzerland received the new dialectic with even more favor, and Ramism was openly professed by men like Zwinger, Freigius, and Aretius. It was not a passing infatuation, either, for it is

[1] *Joannis Miltoni Artis Logicæ Plenior Institutio ad Petri Rami Methodum Concinnata.* (London, 1672.)

known that well into the eighteenth century it still existed in Switzerland.

In Alsace the influence of Sturm accomplished a general spread of the Ramian doctrines, and at Strassburg and Savern the German humanist was ably aided by several scholars. Freigius, who taught both at Freiburg and Altorf, as well as at Basel, Fabricius, rector of the University of Düsseldorf, and Chytræus, rector at Rostock, also greatly aided in the dissemination. A swarm of disciples openly avowed their convictions throughout Germany. The chair of philosophy at nearly all the other Protestant universities, such as Göttingen, Helmstadt, Erfurt, Leipzig, Marburg, and Hannover, came to be occupied for a time by a Ramist. Leading philosophers, jurists, and theologians joined the cause. The Lutherans, however, suspecting that the Ramian principles were in some way an outgrowth of Calvinism, made a propaganda of the dialectic of Melanchthon [1] in opposition, and prominent adversaries of Ramism arose at Tübingen, Altorf, Heidelberg, Wittenberg,

[1] The Melanchthonian logic, which was in general use at German universities, was based on that of Aristotle, although somewhat improved and rhetorically written. While Melanchthon admitted that certain of Aristotle's writings had been lost, he would not concede that merely fragments were left, as Ramus claimed.

and other universities, and the contest waxed fast and furious.

The controversy at the University of Leipzig between 1576 and 1592, of which we possess a detailed account,[1] is probably a fair type of what was generally occurring at most of the institutions. Johannes Cramer, a master of standing at Leipzig, several times dean of the philosophical faculty and twice even rector of the university, was an ardent Ramist and challenged the professor of dialectic, who was orthodox in his philosophy, to a public debate. When, however, the theses of Cramer were sent to the dean, he condemned them as Ramistic, and declared the debate out of order. Cramer continued, however, both in public and private, to present Ramism to the youth of the university, and for a series of years was in a wrangle with one or another of his colleagues. An interdict against his lectures on the subject was issued by the faculty of philosophy and the rector without much effect, and, after examination of the notes of his students and the discovery of much heretical logic, he was suspended from his chair. This led to a riot on the part of the students, and while it was

[1] Voigt, *Ramismus an der Universität Leipzig*, in *Leips. Sächs. gesell. der wiss. Berichte phil.*, 1881.

suppressed by the rector, the faculty was forced by public sentiment to reinstate Cramer, after a public statement that he had never intended to calumniate Aristotle or Melanchthon. However, he clearly continued to teach the Ramian doctrines, and the effects of this instruction were only too obvious when students were examined for their degree. In three cases they were allowed to graduate only upon promising the faculty never to teach Ramism. More trouble was soon precipitated and Cramer was once more unseated, but this time the case was appealed to the elector. As this sovereign was getting along in years, he referred the matter to his progressive son, who, much to the chagrin of the conservative faculty, expressed his surprise that university instruction in philosophy should be limited to traditional doctrines, and declared that only by free expression could any progress be made. He reprimanded the faculty for their attempt to dispossess a professor appointed by the sovereign, and demanded that Cramer be restored. After his rehabilitation half a dozen outbreaks against Cramer occurred, and both he and his supporters were as far as possible deprived of official recognition and constantly hounded by the faculty. Finally, in 1592, Cramer, worn out

with the controversy, resigned voluntarily and became the municipal physician for his native town. The faculty then were careful to see that his successor was not a Ramist.

Similar contests over Ramism must have been going on at the other universities. These seats of conservatism were not quickly or easily aroused from their routine, as we have seen in the case of Ramus himself at Strassburg and Heidelberg.[1] Early in the seventeenth century Ramism was generally proscribed at the universities of Saxony, the Palatinate, and Bavaria, and the Ramists sought to compromise by combining their dialectic with that of Melanchthon. A new school arose out of this union, — the so-called 'Philippo-Ramists,' which included such philosophers as Frisius, Buscher, Casmann, Keckermann, and Alstedt, the teacher and friend of Comenius. But, like most compromises, this syncretism was unsatisfactory and led rather to the preservation of Aristotle than of Ramus.

Yet the influence of Ramism cannot be regarded as entirely lost to philosophy or human intelligence, either in Germany or elsewhere. The authority of Aristotle was rudely shaken, and the way to free

[1] See pp. 96 f. [2] Cf. the *Philippo-Ramian Grammar* on p. 132.

thought was opened. Early in the next century came the work of Bacon, Descartes, and Comenius, and from them has grown that apostolic succession of modern thought, — Locke, Berkeley, Leibniz, Hume, Kant, and Hegel in the realm of speculation, and, in the reformation of education, Rousseau, Pestalozzi, Herbart, and Froebel. While Ramus and his philosophy cannot be interpreted as belonging to this awakened group, it was to some extent through his efforts that the transition was made from scholasticism to modern philosophy and education. He at least freed the human spirit from the dungeon of Aristotle, and drew it forth from the medieval twilight. He improved all the literary and expression studies, and helped give mathematics and science a start. It seems fitting, therefore, to account Peter Ramus a leader in sixteenth-century reforms and in the progress toward modern civilization and enlightenment.

BIBLIOGRAPHY

I. Primary Sources

Banosius, T. *Rami vita* in *Commentaria de religione Christiana* (Frankfurt, 1576).

Carpentarius, J. *Contra importunas Rami actiones* (Paris, 1566).

Félibien, M. *Histoire de la ville de Paris.*

Freigius, J. T. *Commentaires de Ramus sur les discours de Ciceron* (Bâle, 1574). Preface on the Life of Ramus.

Milton, J. *Artis logicæ plenior institutio* (London, 1672).

Nancel, N. de. *Petri Rami Veromandui, eloquentiæ et philosophiæ apud Parisios professoris regii vita* (Paris, 1599).

Ramus, P. *Dialecticæ partitiones (sive Institutiones)*, 1543; *Aristotelicæ animadversiones*, 1543; *Tres Orationes a tribus liberalium disciplinarum professoribus*, 1544; *Euclides*, 1544; *Oratio habita Lutetiæ in gymnasio Prælleorum*, 1545; *Somnium Scipionis ex libro 6 Ciceronis de Republica*, 1546; *Oratio de studiis philosophiæ et eloquentiæ conjungendis*, 1546; *Brutinæ quæstiones in Oratorem Ciceronis*, 1547; *Rhetoricæ distinctiones*, 1549; *Platonis epistolæ latinæ factæ*, 1549; *M. T. Ciceronis de fato liber*, 1550; *M. T. Ciceronis epistola nona ad P. Lentulum*, 1550; *Pro philosophica Parisiensis Academiæ disciplina Oratio*, 1551; *Oratio initio*

suæ professionis habita, 1551; *M. T. Ciceronis pro Caio Rabirio perduellionis reo oratio*, 1551; *Prælectiones in librum I Ciceronis de legibus*, 1554; *M. Tullii Ciceronis de lege agraria contra P. Servilium Rullum tribunum plebis orationes tres*, 1552; *M. Tullii Ciceronis in L. Catilinam Orationes IIII*, 1553; *Arithmeticæ libri tres*, 1555; *Dialectique*, 1555; *P. Virgilii Maronis Bucolica*, 1555; *P. Virgilii Maronis Georgica*, 1556; *Dialecticæ libri duo*, 1556; *Audomari Talæi Admonitio ad Adrianum Turnebum*, 1556; *M. T. Ciceronis de optimo genere oratorum præfatio in contrarias Æschinis et Demosthenis orationes*, 1557; *Ciceronianus*, 1557; *Marci Tulii Ciceronis familiarium epistolarum libri XVI*, 1557; *Oratio de legatione*, 1557; *Liber de moribus veterum Gallorum*, 1558; *Libri de Cæsaris militia*, 1559; *Grammaticæ libri quattuor*, 1559; *Rudimenta grammaticæ (latinæ)*, 1559; *Scholæ grammaticæ*, 1559; *Grammatica græca*, 1560; *Rudimenta grammaticæ græcæ*, 1560; *Gramere*, 1562; *Proœmium reformandæ Parisiensis academiæ*, and *Advertissements sur la réformation de l'université de Paris*, 1562; *Oratio de professione liberalium artium*, 1563; *Scholarum physicarum libri octo*, 1565; *Scholarum metaphysicarum libri quattuordecim*, 1566; *Actiones duæ habitæ in senatu pro regia mathematicæ professionis cathedra*, 1566; *Préface sur le Proëme des mathematiques*, 1566; *Proœmium mathematicum*, 1567; *La Remonstrance faite au conseil privé*, 1567; *Audomari Talæi Rhetorica, P. Rami prælectionibus illustrata*, 1567; *Rectori et Academiæ Parisiensi*, 1568; *Geometriæ libri septem et viginti*, 1569; *Scholæ in liberales artes*, 1569; *Scholarum mathematicarum libri unus et triginta*, 1569; *P. Rami et Jacobi*

Schecii Epistolæ, 1569; *Defensio pro Aristotele adversus Jac. Schecium*, 1571; *Basilea ad senatum populumque Basiliensem*, 1571; *Testamentum*, 1574; *Prælectiones in Ciceronis orationes octo consulares*, 1574; *Commentariorum de religione Christiana libri quattuor*, 1576; *Professio regia*, 1576; *Collectaneæ præfationes, epistolæ, orationes*, 1577; *M. T. Ciceronis pro M. Cl. Marcello oratio*, 1582; *In Ciceronis orationes et scripta nonnulla*, 1582; *Arithmeticæ libri duo et Algebræ todidem*, 1586; *Aristotelis Politica*, 1601; *Epistolæ variæ*.

II. Secondary Sources

Baillet, A. *Jugements des Savans sur les principaux ouvrages des auteurs*, Amsterdam, 1725. V, 125 f.; VIII, 204 f.

Barni, J. R. *Les Martyres de la libre pensée.* Pp. 107–135.

Bayle, P. *Dictionnaire historique et critique*, Rotterdam, 1697. *Ramus.*

Caraman, le duc de. *Histoire des revolutions de la philosophie en France.* III, pp. 245 ff.

Crevier, J. B. *Histoire de l'Université de Paris*, Paris, 1761. V and VI.

Denifle, H., et Chatelain, Æ. *Chartularium universitatis Parisiensis*, Paris, 1889–1897.

Desmaze, C. A. *Petrus Ramus, professeur au Collège de France, sa vie, ses écrits, sa mort*, Paris, 1864.

Du Boulay, N. *Histoire de l'Université de Paris.*

Gaillard, G. N. *Histoire de François I*, Paris, 1766. VII and VIII.

Guggenheim, M. *Beiträge zur Biographie des Petrus Ramus*

(*Zeitschrift für Philosophie und Philosophische Kritik*, Band 120, Heft 2, ss. 140–153), Leipzig, 1903.

JOURDAIN, C. *Histoire de l'Université de Paris au XVII^e^ et au XVIII^e^ siècle*, Paris, 1862–1866.

LANTOINE, H. *Histoire de l'enseignement secondaire en France au XVII^e^ siècle*, Paris, 1874.

LOBSTEIN, P. *Petrus Ramus als Theologe*, Strassburg, 1878.

OWEN, J. *The Skeptics of the French Renaissance*, London, 1893. Chap. II.

PRANTL, K. VON. *Ueber P. Ramus* (*Münchener Sitzungsberichte*, 1878).

SAISSET, E. E. *Les précurseurs de Descartes*, Paris, 1862.

SCHWEITZER, A. *Die Philosophie des Petrus Ramus* (Erster Artikel, 10, of *Die Entwickelung des Moralsystems in der Reformirten Kirche*), Leipzig, 1850.

VOIGT, G. *Ueber den Ramismus an der Universität Leipzig* (*Berichte über die Verhandlungen der Gesellschaft der Wissenschaften*, Band 99), Leipzig, 1887.

WADDINGTON, C. *De Petri Rami vita, scriptis, philosophia*, Paris, 1848.

WADDINGTON, C. *Ramus, sa vie, ses écrits, et ses opinions*, Paris, 1855.

WÜRKERT, G. *Die encyclopädie des Petrus Ramus, Ein Reformversuch der Gelehrtenschule des 16. Jahrhunderts*, Leipzig, 1898.

INDEX

Abelard, 16.
Academic, 52.
Academy, Talon, 42.
Advice on the Reformation of the University of Paris, 78–84, 202.
Agricola, 2, 17, 98, 142, 205.
Aim of Ramus, 108.
Albigenses, 7.
Alexander of Villedieu, 16, 38, 121.
Alexandre, Barthélemy, 28, 210.
Alstedt, 217.
Altorf, 214.
Amboise, Peace of, 86.
Amesius, 213.
'Analysis,' 117, 140, 165.
Animadversions on Aristotle, 30, 34, 39, 59, 143.
Apollonius, 60.
Archimedes, 43, 60, 61.
Aretius, 213.
Aristotelianism, 98.
Aristotle, 16, 17, 22, 25, 26, 27, 30, 64, 72, 144, 169, 175, 176, 206, 217.
Arminius, 213.
Ascham, 4, 61, 73, 212.
Augsburg, 98.

Bacon, 212, 218.
Banosius, 19.
Basel, 10, 94, 96, 213, 214.
Bavaria, 217.
Bellon, 210.
Berkeley, 218.
Bern, 213.
Beza, 10, 74, 99, 103, 200, 201, 213.
Bourbon, Charles of, 31, 104.
Bourbons, 11, 12.
Brahé, 99.
Bruno, 212.
Buchanan, George, 213.
Budæus, 4.
Bullinger, 95.
Buscher, 217.

Calvin, 7, 10, 72, 95, 191, 198.
Calvinism 11, 214.
Cambridge, 4, 212, 213.
Camerarius, 61.
Carpentarius, 41, 45, 46, 63 f., 70, 88 ff., 104, 106, 212.
Casmann, 217.
Catherine de' Medici, 11.
Catherine Petit, 95.
Catholics in France, 10 ff.
Cayet, 19.
Charles, Cardinal of Lorraine, *see* Lorraine.
Charles V, 8, 10.
Charles IX, 11.
Charpentier, *see* Carpentarius.
Cheke, 4.
Chytræus, 214.
Cicero, 17, 42, 43, 134, 135, 157, 206.
Coccius, 95.
Colet, 5, 6.
Coligny, Admiral, 12, 13.
College of Ave Maria, 28, 29, 59.
College of Beauvais, 33.
College of Boncour, 32, 45.
College of Clermont, 87.
College of France, 4, 13, 15, 40, 45, 100, 104, 162.
College of Mans, 27.
College of Navarre, 16, 20, 27, 108.
College of Presles, 13, 14, 39, 45, 47, 85, 100, 104.
Collège Royal, *see* College of France.
Colloquy of Poissy, 10, 73, 100.
Comenius, 217, 218.
Commentaries on the Christian Religion, 97, 184 ff.

Committee of Seven, 69, 78.
Condé, Prince of, 12, 13, 70.
Consonants, Ramist, 125.
Cosel, Dampestre, 88.
Cramer, 215 f.
Curriculum in University of Paris, 14 f.
Cust, 19.

De Disciplinis, 29.
De Gorris, 210.
De l'Hospital, 76.
De Montuelle, 33.
Demosthenes, 157.
Descartes, 162, 211, 218.
Despantère, 121.
Dialectic, 17, 21, 29, 58, 141–159.
'Dichotomy,' 130, 164.
Digby, Everard, 212.
Diplomatic missions of Ramus, 67 ff.
Disputation, 21 f., 29, 114.
Doctrinale, 121.
Dolet, Etienne, 18.
Donatus, 6, 121, 123, 206.
D'Ossat, 87.
Douai, 212.
Dream of Scipio, 40.
Du Bellay, 44.
Dubois, 18.
Du Chastel, 33, 43.

Edict of Francis against Ramus, 36.
Edict of Nantes, 13.
Edict of Toleration, 12, 76.
Edward VI, 9.
Elegancies of Latin, 121.
Elizabeth, 9.
Erasmus, 2, 4, 6, 7, 16, 115.
Erfurt, 4, 214.
'Esoteric,' 120.
Ethics, 73.
Ethics of Ramus, 173–184.
Euclid, 38, 43, 59, 161, 165.
'Exoteric,' 120.
'Explanation,' 116, 117, 118, 140.

Fabricius, 214.
Ferdinand of Hapsburg, 9.
Fernel, 210.
Finée, 18, 59.
Forcadel, 61.
Francis I, 9 10, 31, 34.
Francis II, 11.
Francis, Duke of Guise, *see* Guise.
Frankfurt, 99.
Frederick III, 97.
Freiburg, 94, 214.
Freigius, 19, 94, 213, 214.
'French Plato,' 92.
Frisius, 217.
Froebel, 218.

Galen, 17, 24, 43.
Galland, 32, 33, 41, 44, 45, 63, 70.
Gassendi, 211.
'Genesis,' 117, 140, 165.
Geneva, 10, 99, 103.
Göttingen, 214.
Govéa, 32, 33.
Grammar, 57, 121–134.
Grocyn, 4.
Grynæus, Samuel, 95.
Guise, Duke of, 11, 77.
Guises, 12, 13, 69, 71, 78, 88, 90.
Gymnasien, 3.

Hannover, 214
Hegel, 218.
Heidelberg, 4, 93, 96, 98, 214, 217.
Heliogabalus, 117.
Helmstadt, 214.
Hennuyer, 27, 32.
Henry II, 11, 41, 42, 49, 50.
Henry III, 11.
Henry IV, 13.
Henry VIII, 7, 9.
Herbart, 218.
Hervagius, 94.
Hieronymians, 2.
Hippocrates, 24, 43.
Holy League, 13.
Huguenots, 11, 105; of state, 12, 85; of religion, 12, 13.
Humanism, 1 ff., 15, 98.
Hume, 218.
Huss, 7.

Inaugural address, 48 ff.
Institutes of Christianity, 10.
Institutions of Dialectic, 30, 35, 58.

Jena, 4.
Jesuit colleges, 3, 87.
Jesuits, 211.

Kant, 218.
Keckermann, 217.
Königsberg, 4.
Krag, 212.

La Rochelle, 12, 200.
Latin grammar school, 5.
Lausanne, 99, 213.
Law, 79, 82, 202.
Laws of 'truth,' 'justice,' and 'wisdom,' 11 f., 135, 163, 206.
Lefèvre, 6, 7, 18.
Leibniz, 218.
Leipzig, 4, 214, 215.
Le Masson, 18.
Lesage, 39, 41.
Leyden, 212.
Linacre, 4.
Locke, 218.
Lorraine, Charles, Cardinal of, 11, 15, 31, 41, 46, 49, 51, 74, 78, 100, 105.
Loyola, 3.
Luther, 6, 7, 72, 196, 198.
Lutherans, 214.

'Mæcenas,' 53 ff., 88.
Marburg, 214.
Margaret of Navarre, 10.
Masters of university colleges, 16.
Mathematics, 59, 88 f., 160–165.
Medicine, 80, 82, 202.
Meigret, 18.
Melanchthon, 6, 113, 131, 134, 139, 205, 214, 217.
Metaphysics, 87.
Methods, 21 ff., 56 f.
Milton, 213.
Montauban, 12.
Montluc, Jean de, 105.
More, 4.

'Nature,' 109 f.
Nicholas of Nancel, 19, 212.
Nîmes, 12, 200.
Nüremberg, 98.

Œcolampadius, 95.
Organon, 23, 142.
Oxford, 4, 212.

Palatinate, 92, 96, 217.
Pappus, 60.
Parlement of Paris, 13, 33.
Périon, 32, 43, 63.
Peripatetics, 31, 37.
Pestalozzi, 218.
Petromachy, 44.
Philip II, 9.
Philippo-Ramian Grammar, 132.
Philippo-Ramists, 217.
Physics, 62, 168–172.
Plato, 16, 17, 24, 27, 42.
Platter, 94.
Pliny, 169.
Poles, the, 105.
Port Royalists, 211.
'Practice,' 109, 114–118, 140.
Principles of Ramus, 109–119, 206.
Principles of 'system,' 110–113.
Priscian, 16, 121, 123, 206.
Proclus, 61.
Pronunciation, 62 f., 125.
Protestants, 10 ff., 72, 95.

Quadrivium, 59, 120, 160–172.
Quintilian, 18, 42, 43, 44, 134, 135, 139, 206.

Rabelais, 44.
Reformation, 6, 8, 188.
Renaissance, 1, 2, 5, 8, 188.
Republic, 39.
Reuchlin, 2.
Rheims, 210.
Rheticus, 61.
Rhetoric, 58, 134–141.
Rostock, 214.
Rousseau, 218.
Royal lecturers, 16.
Rue de Fouarre, 14.

St. Bartholomew's Day, massacre of, 13, 105.
St. Denis, 90, 102.
St. Germain, 67.
St. Paul's School, 5.

Sanchez, 211.
Sapiens, 29.
Savern, 214.
Saxony, 217.
Schegk, 96, 212.
Schreckfuchs, 94.
Serenus, 60.
Sidney, 212.
Simler, 95.
Simoni, 211.
Snellius, 212.
Social efficiency, 208.
Socrates, 17, 24, 38.
Sorbon, Robert, 14.
Sorbonne, 14, 62, 125.
Stoics, 17.
Strassburg, 3, 93, 98, 214, 217.
Stuart, James, 213.
Studies in Dialectic, 21, 144.
Studies in Physics, 168.
Studies in the Liberal Arts, 17, 96.
Sturm, 3, 6, 17, 29, 73, 93, 113, 115, 118, 161, 205, 214.
Sulzer, 95.
Syntax, 124, 128 f.
'System,' 109, 110–114.

Talon, 28, 38, 39, 40.
Temple, William, 212.
Theodosius, 60.
Theology, 98, 184–202.
Toulouse, 210.
Tousan, 65.
Tremellius, 96.
Trivium, 57, 59, 120–159.
Tübingen, 4, 96, 214.
Turnebus, 65 f., 70.

University of Bologna, 93, 211.
University of Düsseldorf, 214.
University of Leipzig, 215–217.
University of Paris, 3, 10, 13, 14, 28, 36.
University of St. Andrews, 213.
University of Salamanca, 211.
'Usuarius,' 57.

Valla, 17, 142.
Valence, Bishop of, 105.
Varro, 206.
Vassy, massacre at, 12, 85.
Vergil, 121, 169.
Vives, 17, 113, 115, 118, 142, 205.
Voltaire, 211.

Waldenses, 7, 10.
Westphalia, 92.
Wittenberg, 4, 214.
Wolf, 94.
Wolsey, 4.
Wyclif, 7.

Zürich, 213.
Zwinger, 94, 98, 213.
Zwingli, 7, 72, 191, 196, 198.

THE following pages contain advertisements of books by the same author or on kindred subjects.

History of Education during the Middle Ages and the Transition to Modern Times

By FRANK PIERREPONT GRAVES, Ph.D.

Professor of the History of Education in the Ohio State University

Cloth, 12mo, $1.10 net

This volume is a continuation of the "History of Education before the Middle Ages." Without dwelling upon matters remotely related to the educational problems of to-day, an accurate picture is afforded of educational history between the sixth and the eighteenth centuries. The sources are extensively quoted, and selected lists of supplementary reading are given at the end of each chapter. The book is suitable as a text or a work of reference.

"In the same spirit of careful research and open-minded discussion that marked the first part of his work." — *The Independent.*

"The present volume is not only as good as, but better than, the previous one. The work is conspicuous among histories of education as one of the most complete and interesting."

— *Journal of Educational Psychology.*

"He has made of dry historical facts a narrative full of interest, one that touches the life, politics, religion, and philosophy of the times."

— *Pedagogical Seminary.*

A History of Education during Modern Times

By FRANK PIERREPONT GRAVES, Ph.D.

Professor of the History of Education in the Ohio State University

In preparation

In continuation of the two preceding volumes, this work will cover the history of education from the days of Rousseau and the French Revolution to the present time.

THE MACMILLAN COMPANY

Publishers **64–66 Fifth Avenue** **New York**

A History of Education before the Middle Ages

BY

FRANK PIERREPONT GRAVES, PH.D.
Professor of the History of Education in the Ohio State University

---

Cloth, 12mo, $1.10 net

This book gives a comprehensive account of the history of education before the day of the monastic schools. It presents sufficient material to mark the most significant movements and discloses the underlying principles without entering into unnecessary detail. All interpretations are based upon historical data collected from the sources, and direct quotation is liberally used throughout.

"Professor Graves has taken the method of procedure, at once most natural and most philosophical, of studying each stage with a view to progress."
— *The Outlook.*

"A book which gives evidence on every page of ripe scholarship, breadth of view, and keen discrimination between significant things and mere detail."
— *The School Review.*

"Professor Graves does well to give the profession the fruit of his abundant knowledge in a scholarly text-book and reference work, complete without being tedious, condensed without being lifeless." — *Journal of Education.*

THE MACMILLAN COMPANY
Publishers **64-66 Fifth Avenue** **New York**

Great Educators of Three Centuries

By FRANK PIERREPONT GRAVES, Ph.D.

Professor of the History of Education in the
Ohio State University

This book furnishes a popular account of the life and work of the men who, during the past three centuries, have introduced various innovations and reforms into modern education. While the facts of biography are narrated somewhat at length, an effort has been made to eliminate everything that does not have some bearing upon the contributions of the educator under consideration.

"As history is largely a matter of biography, and as institutions are usually the lengthened shadow of a man, so the historic trend of education can be indicated well enough for the casual reader by an intelligent summary of the work of a few great educators, together with comments on the tendencies and interrelations of that work. Professor Graves has gotten up such a summary in his brief volume, in which he has judiciously selected and clearly stated his facts. His comments on these facts are illumination and his comments would seem to be well founded." — *Boston Evening Transcript.*

"The thoroughly painstaking method of Professor Graves is evident on every page of these splendidly written books. A scientific and scholarly attitude combined with common-sense makes these by all odds the most practical text-books yet published in this field." — President W. G. Clippinger, of Otterbein University.

"The social settings, dialectic methods, and ultimate achievements of nearly a score of illustrious world reformers are here brilliantly outlined." — *The Philadelphia North American.*

"Some of those who are complaining about present-day teaching have not the slightest notion of the origins of modern practice. . . . Partisans in either camp will do well to read Professor Graves's new book, which should help the layman to understand contemporary educational aims and practices." — Professor M. V. O'Shea in *The Dial.*

THE MACMILLAN COMPANY

Publishers **64–66 Fifth Avenue** **New York**

By WILLIAM HAWLEY SMITH

All the Children of All the People

A Study of the Attempt to Educate Everybody

Cloth *12mo* *306 pages* *Index* *$1.50 net; by mail, $1.61*

The task of trying to educate everybody which our public schools are attempting to perform, has proved far more difficult than the originators of the system deemed it would be when they set out upon the undertaking. The author gives this problem careful study and consideration and his book will prove an invaluable help toward its successful solution.

By FRANK LOUIS SOLDAN

Late Superintendent of Schools, St. Louis, Mo.

The Century and the School

AND OTHER EDUCATIONAL ESSAYS

Cloth *12mo* *$1.25 net; by mail, $1.33*

The essays brought together in this volume were selected by a group of the late Superintendent Soldan's intimate associates. The titles are: The Century and the School; Morality and Education; What is a Fad?; Teachers' Duties; Educational Ideas in Dickens' Novels; A Visit to German Schools; Reading in the Higher Grades; Folklore and Fairy Tales.

THE MACMILLAN COMPANY

Publishers **64-66 Fifth Avenue** **New York**

0562

371.4C318Y G776p
Peter Ramus and the educat
1144 00162894 9

371.1
L316y
G776p

215413

Graves, F. P.
Peter Ramus and the educational reformation of the sixteenth century.

WITHDRAWN

Drew University Library
Madison, New Jersey

1. A fine of five cents a day will be charged on each book which is not returned by date stamped in book. No book will be issued to any person incurring such a fine until it has been paid.
2. All injuries to books beyond reasonable wear and all losses shall be made good to the satisfaction of the Librarian.
3. Each borrower is held responsible for all books charged to him and for all fines accruing on the same.